

THE AMERICAN

ELEVATOR AND

GRAIN TRADE

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VOL. XLVIII

431 South Dearborn Street, Chicago, Ill., March 15, 1930

NO. 9

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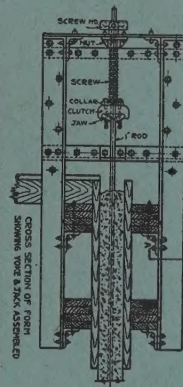
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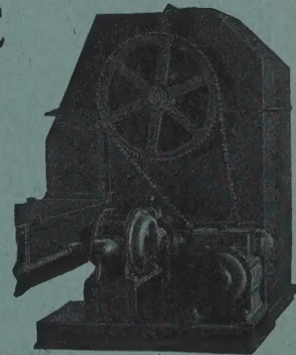
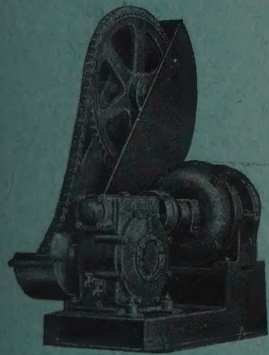
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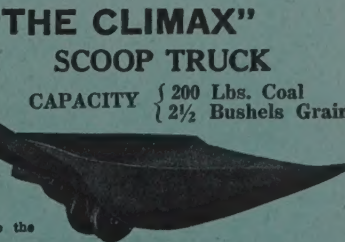
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CAPACITY { 200 Lbs. Coal
2 1/2 Bushels Grain

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PRICE: \$15.00 F. O. B. cars at factory
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DIAMOND RUBBER CO. INDUSTRIAL NEWS

Diamond Grain Belts Help In Producing Irradiated Cereals

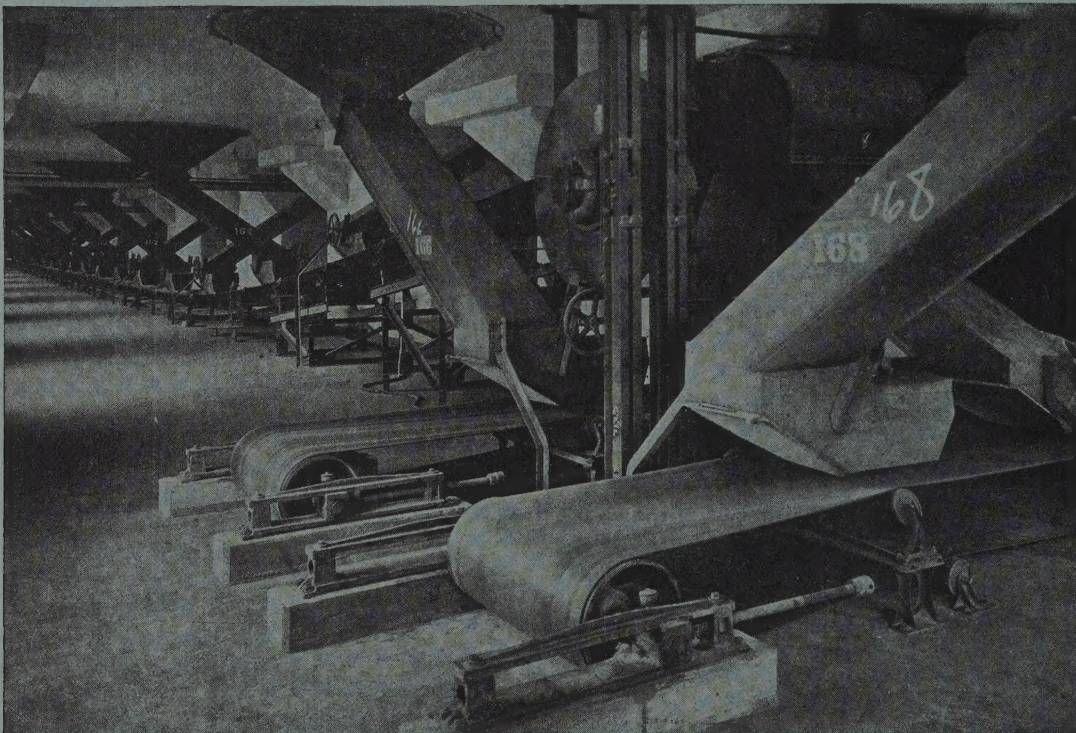


PHOTO shows interesting arrangement of spouting and belts in the Cedar Rapids plant of The Quaker Oats Company. Webster-Weller machinery, belts by Diamond.

DIAMOND Grain Belts, which are themselves produced in a plant built and conducted in accordance with the most modern practice, are here shown as installed in the latest addition to The Quaker Oats Company's Cedar Rapids plant, recently erected by the Leonard Construction Company.

This is one of the plants in which cereals are irradiated with ultra-violet light, to produce in them the rare vitamin D. The presence of Diamond Belts in such a plant emphasizes the constant

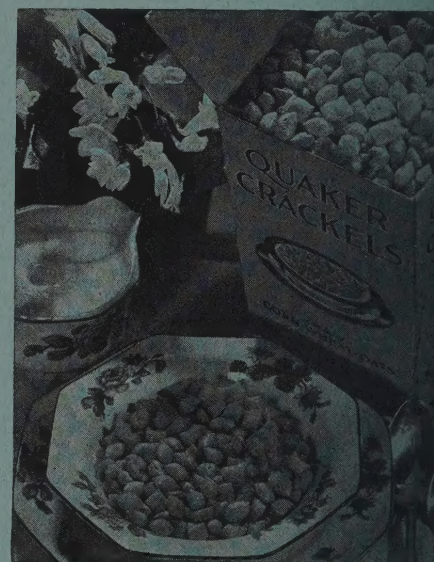
association of our products with the latest advances in science and industry.

In the manufacture of Diamond Grain Belts we utilize one of the more recent discoveries in rubber chemistry. In the rubber compounds used, we incorporate certain anti-oxidant "age-resisters," discovered in our own laboratories. These anti-oxidants have been officially recognized by a Governmental Committee as effecting savings for the users of rubber products estimated at \$50,000,000 annually.

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CRACKELS—an appetizing, new cereal, a composite of corn, oats and wheat. Product of The Quaker Oats Company.

Diamond

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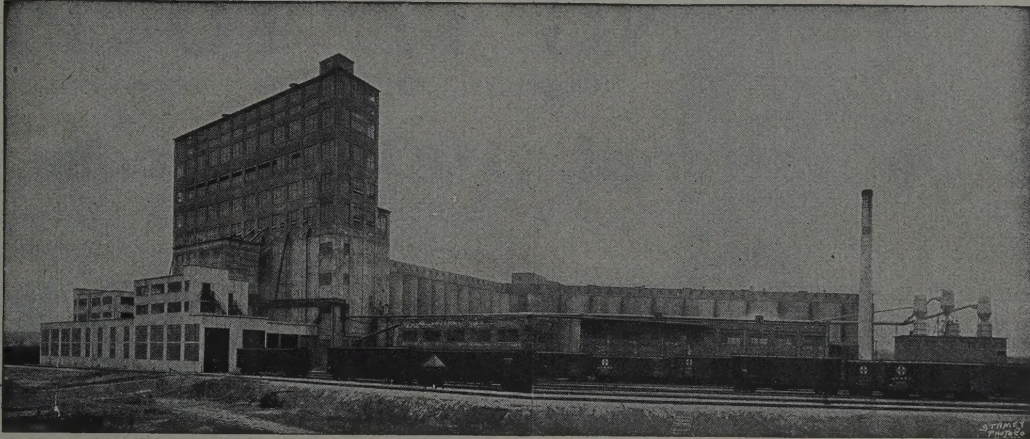


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This huge house is equipped throughout with WEBSTER machinery. It is one of the most economically operated houses in the world and WEBSTER equipment is largely responsible for its economy in operation.

*WEBSTER equipment is patterned with care and well designed,
and the most durable that can be manufactured
It is the standard for elevator equipment.*

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The names of Webster and Weller have been familiar to the grain trade as manufacturers of high grade machinery. During this period most of the large, as well as the smaller Elevators have depended on us for their elevating, conveying and power transmitting machinery.

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Because it is better fitted and more carefully designed it reduces installation costs and difficulties; also reduces renewal and repair bills.

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Apron Conveyors	Elevator Boots	Power Shovels
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Screw-Conveyors	Elevator Spouts	Hangers
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That Sensational, 100% success, the

BUHLER DRIVE

will save you hundreds of dollars

Take off your present eccentric shaft assembly; remove the post boxes, eccentric shaft, eccentrics and connecting rods; then substitute a Buhler Drive.

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After you have seen a Buhler Drive in action, nothing in the world could tempt you to buy any ordinary grain cleaner driven by eccentrics

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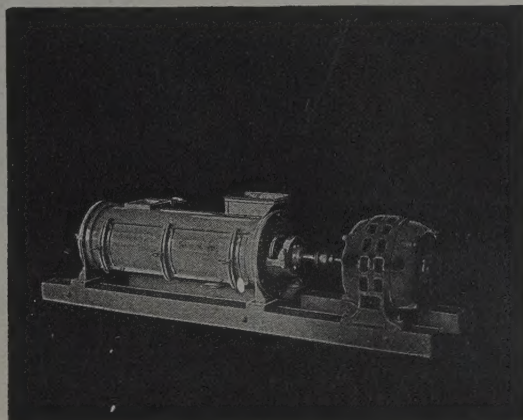
Others are getting it in 44 different states with the MIRACLE MOLASSES PROCESS.

Sweet Feed Milling is purely a local proposition and you ought to be the sweet feed miller in your locality.

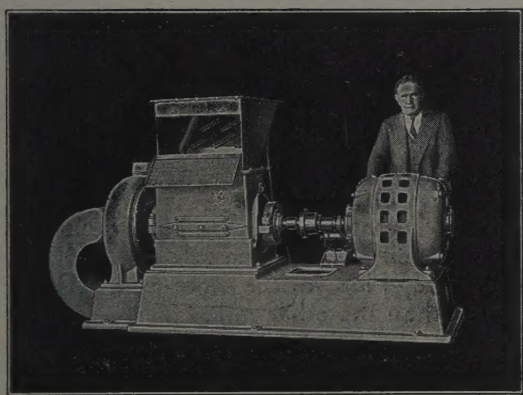
The MIRACLE COLD MOLASSES PROCESS is the greatest advance ever made in the manufacture of feeds.

This process operates equally as well in zero and below weather as it does in the hottest summer months without any artificial heat.

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Write for our booklets "THE MIRACLE SWEET FEED SYSTEM," and "THE ONLY WAY TO MAKE FEED."

We can build you the biggest money making complete feed mill just as we are building others in all parts of the U. S. Let us hear from you.

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All hammer mills grind fast—turn out a lot of ground stuff, but the fact for you to learn is, how much power does it take to grind 100 lbs. of anything through a certain sized screen.

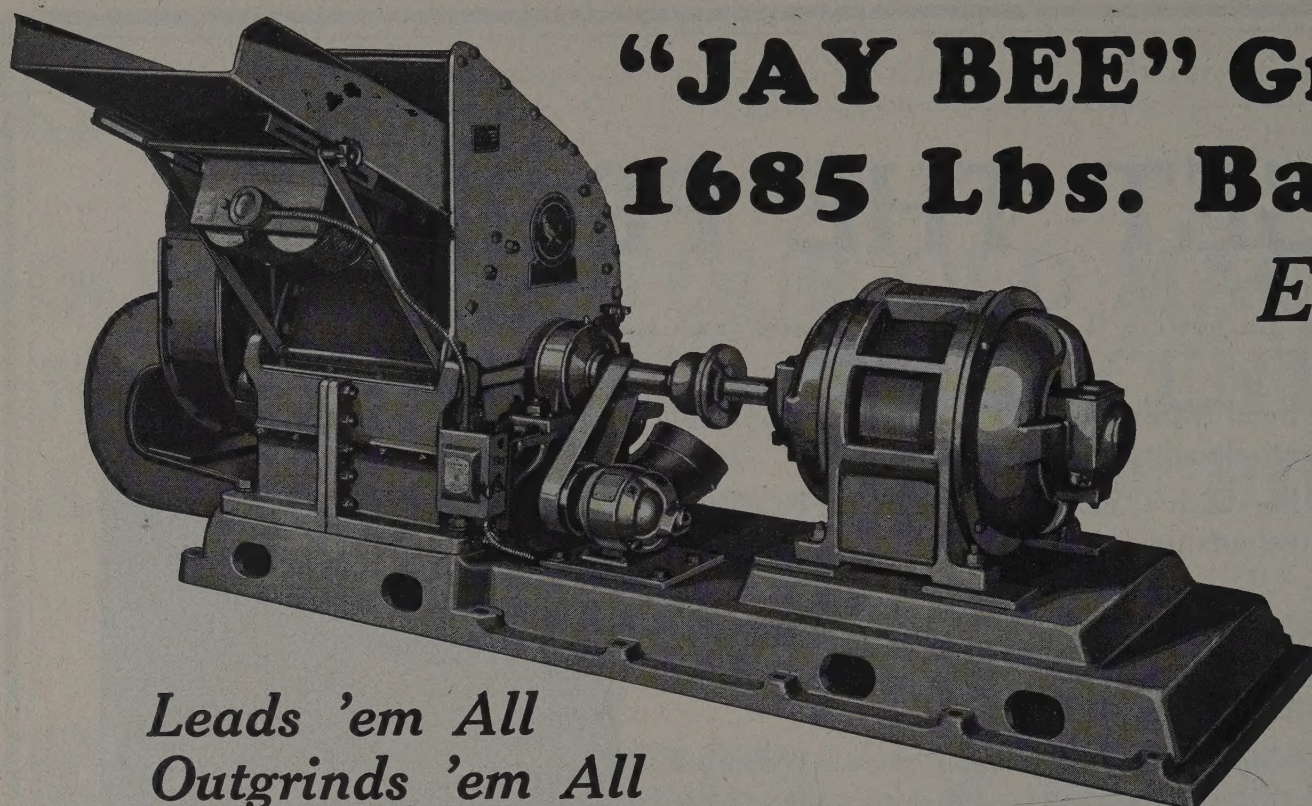
The Neilsens Engineering Report on the MIRACLE ACE HAMMER MILL shows it grinds oats at the heretofore unheard rate of 1.56 K.W. of electricity per 100 lbs. through a 1/16 screen. You cannot afford to run a mill that grinds the same kind of oats through the same screen at from 3 K.W. and up. Remember the MIRACLE ACE HAMMER MILL is the

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**Power
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A booklet we will send you telling how the "Jay Bee" has profited others. The "Jay Bee" is made in sizes and styles to meet every grinding requirement: from 12 H. P. to 100 H. P. for belt, V-belt and direct connected drives. Write for literature and complete details.

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Here's the Proof

Further proof that the "Jay Bee" is the lowest cost, biggest capacity hammer feed grinder made is shown in the test recently made at a large milling plant in Missouri (name given on request). Both mills were direct connected to 3600 R.P.M. 75 H.P. motors; both were equipped with automatic feeders and magnetic separators.

42# Barley "Jay Bee" Other Mill

Screen	1/20"	1/20"
Power consumed	140 KW	132.5 KW
Amount ground	6272#	4587#
Time	2 hours. 2 min.	2 hours. 2 min.
Power cost at .225kw	\$3.15	\$2.98

Note: The "Jay Bee" ground 1685 lbs. barley extra at a power cost of 17c. The grinding was at the rate of 3084 lbs. per hour for the "Jay Bee;" 2254 lbs. for the other mill. The "Jay Bee" ground 36% more than the other mill.

At the time of this test the "Jay Bee" hammers showed very little wear after 286 hours of grinding over a 3/32", 1/16" and 1/20" screen.



Illustrated above: "Jay Bee" Model "W"; Direct Connected
50 H.P. to 100 H.P.; Belt Driven 50 H.P. to 75 H.P.

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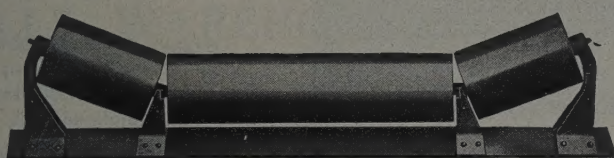
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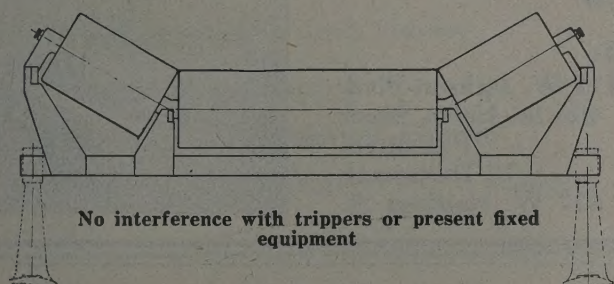
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BALL BEARINGS

(PATENT PENDING)

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No interference with trippers or present fixed equipment

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Save 50% in power.

Cut cost of maintenance and lubricant expense to almost the vanishing point.

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Eliminate injury to belts.

Use lighter duck and fewer plies in new belts.

REDUCE FIRE HAZARD.

Make replacements at once or gradually as suits conditions.

The saving in power, lubricants and maintenance will offset cost of installation.

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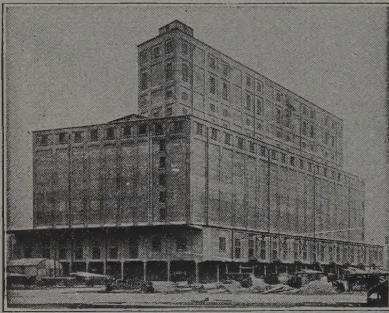
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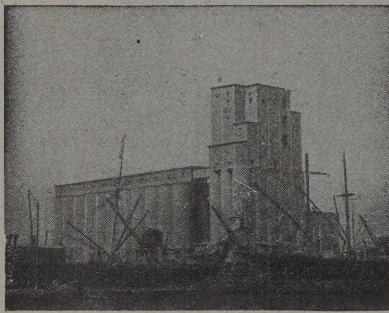
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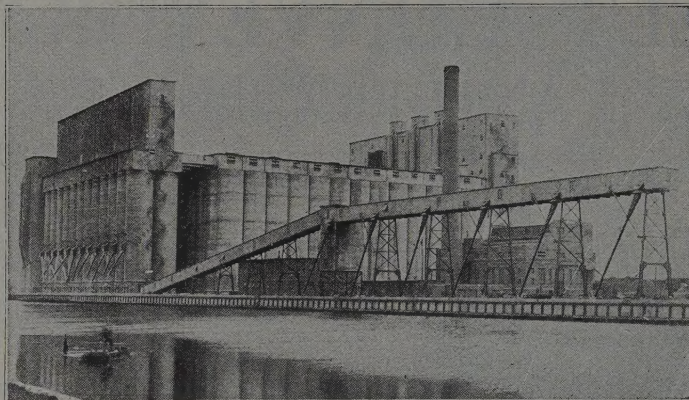
Manchester Ship Canal Elevator
Manchester, England
Capacity 1,500,000 Bushels
Completed 1914



Buenos Aires Elevator Co.
Buenos Aires, Argentina
Capacity 750,000 Bushels
Completed 1920



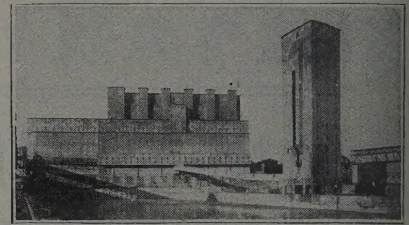
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Chicago & North Western Railway Elevator
South Chicago, Illinois
Capacity 10,000,000 Bushels
Completed 1920

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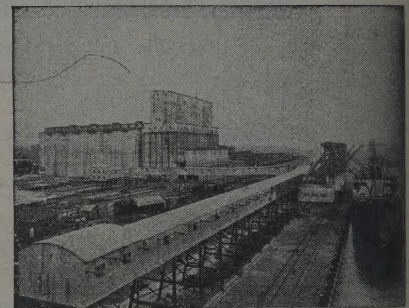
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Harbour Commissioners Elevator No. 2
Montreal, Quebec
Capacity 2,600,000 Bushels
Completed 1912



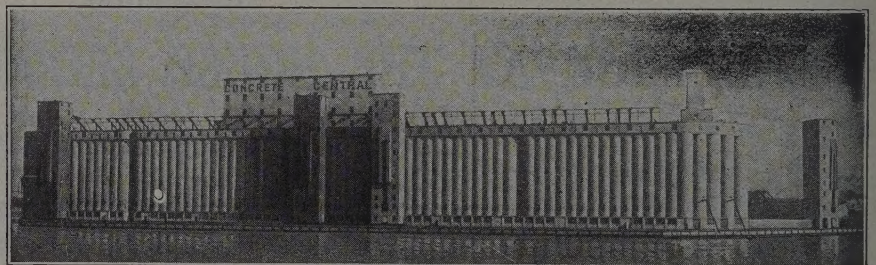
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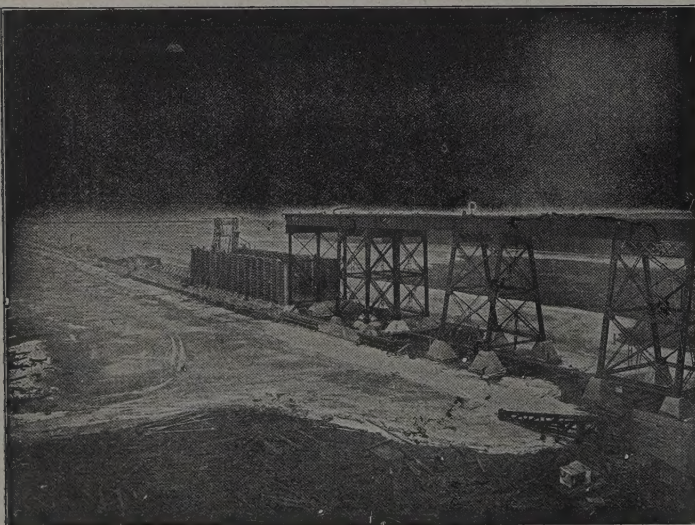
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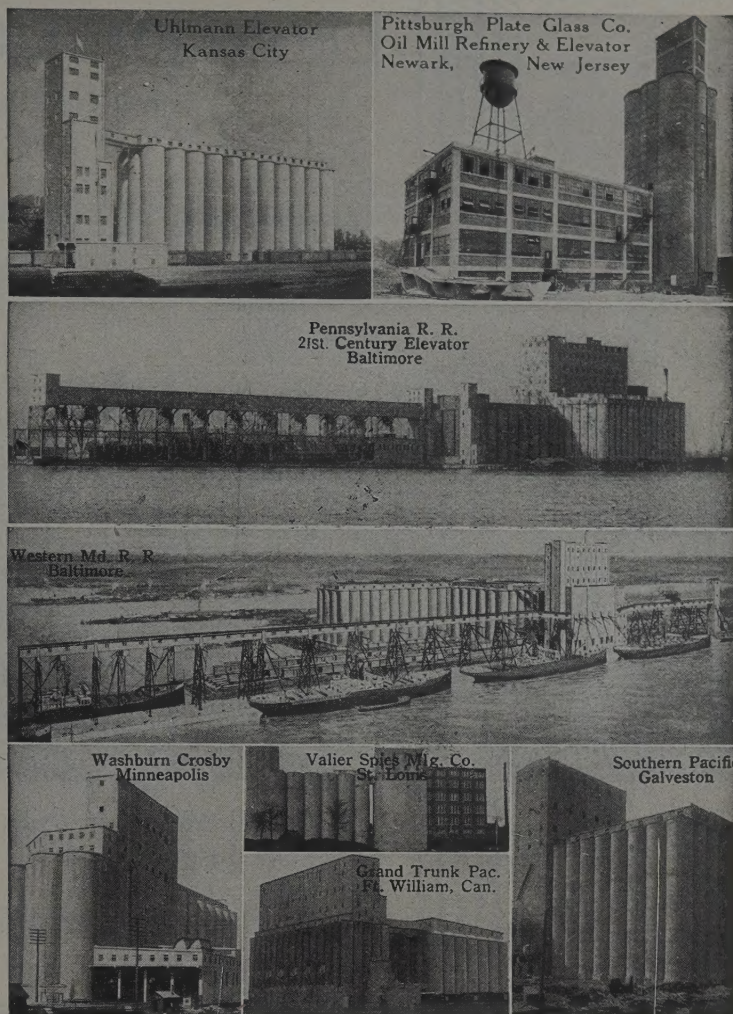
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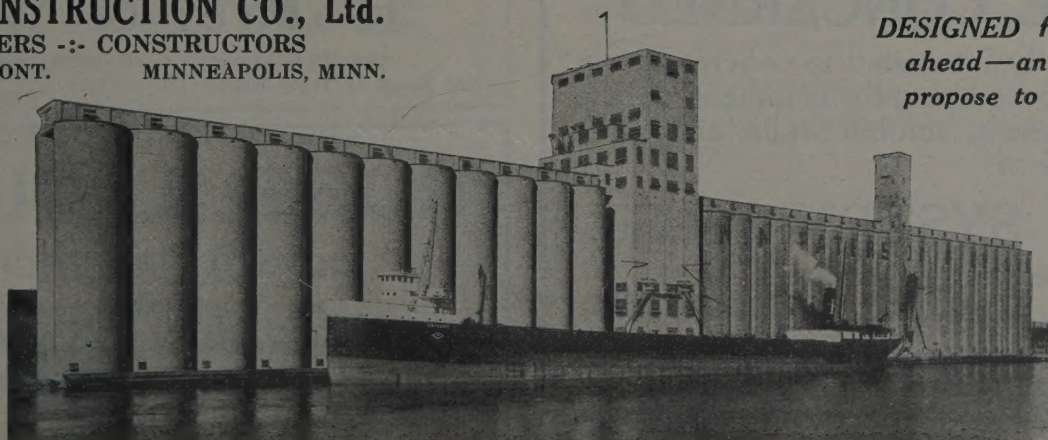
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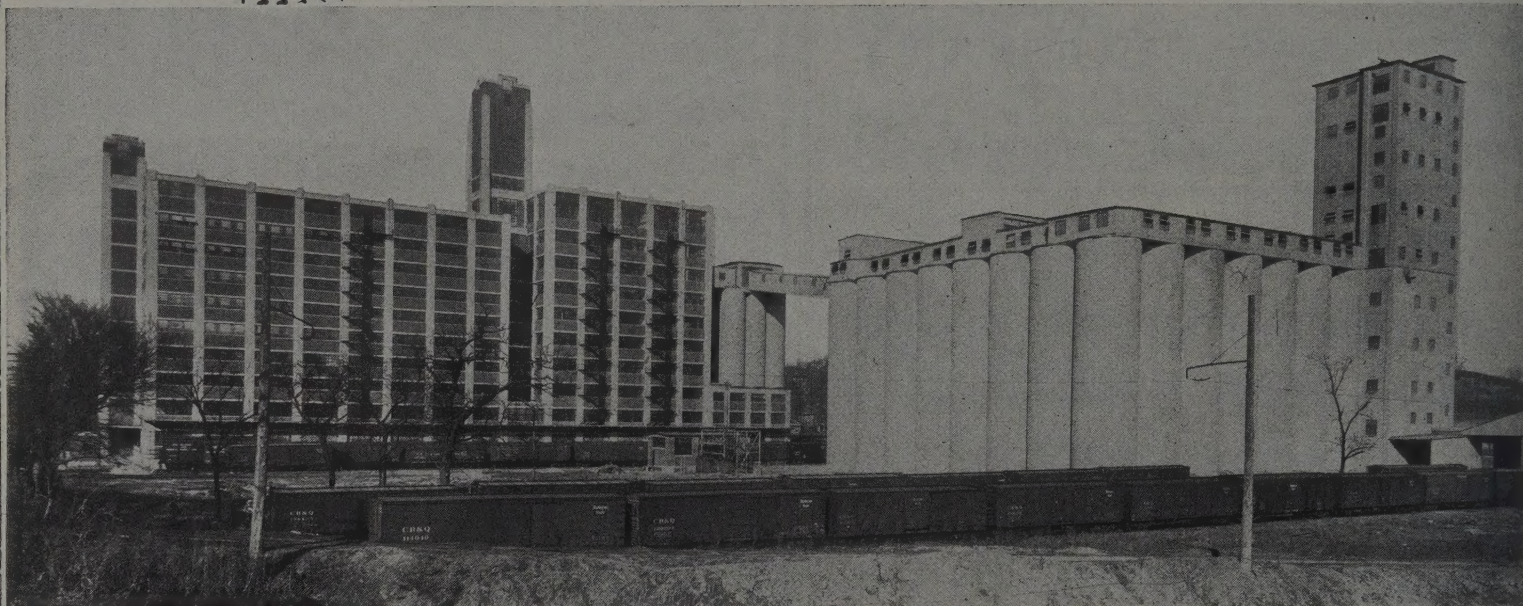
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TO

THE GRAIN ELEVATOR TRADE

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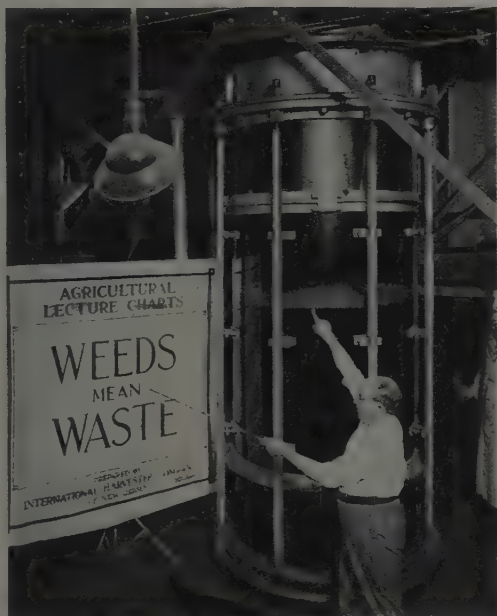
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Put these tools to work for you this year. They cost you nothing and will help you to earn a most unusual profit in your Seed Department.

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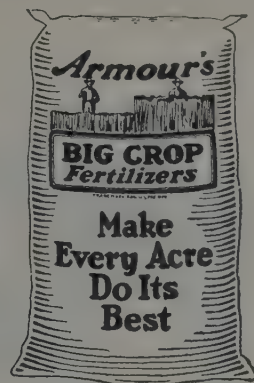
(Subsidiary—John R. Kellogg Seed Co.)

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ARMOUR FRANCHISE

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There's no wonder that Armour dealers who have the Armour Franchise hang on to it for dear life. It's a guarantee of steady repeat business. And a business that's continually increasing. For as the news spreads that you've got Big Crop, you can count on more farmers wanting it! They'll take the name "Armour" for all it's worth—and the Big Crop results will show they're not wrong!

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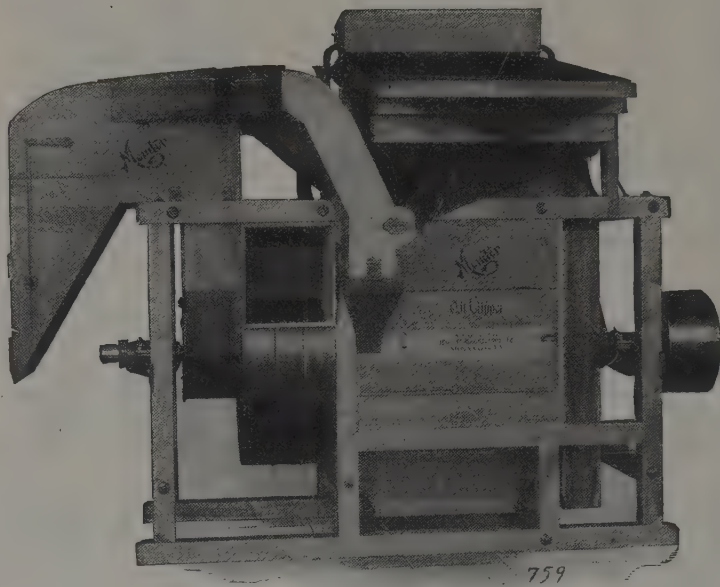
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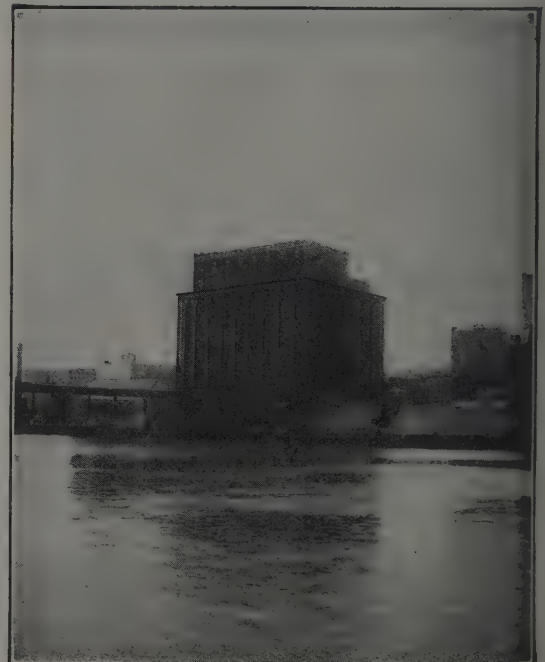
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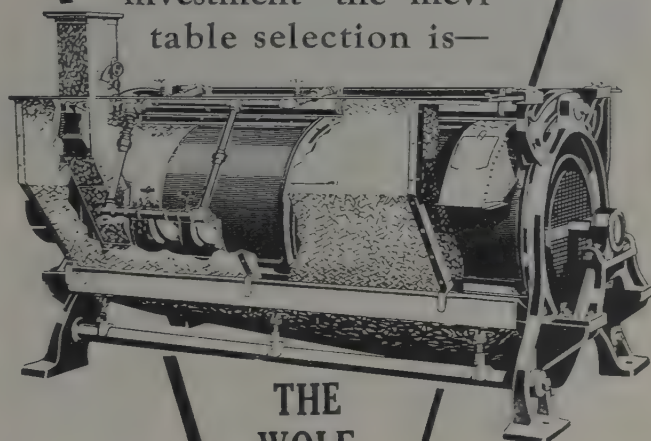
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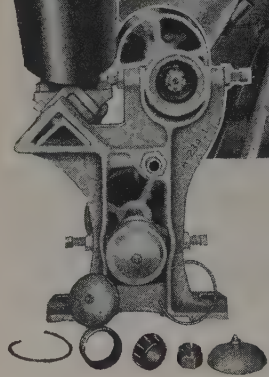
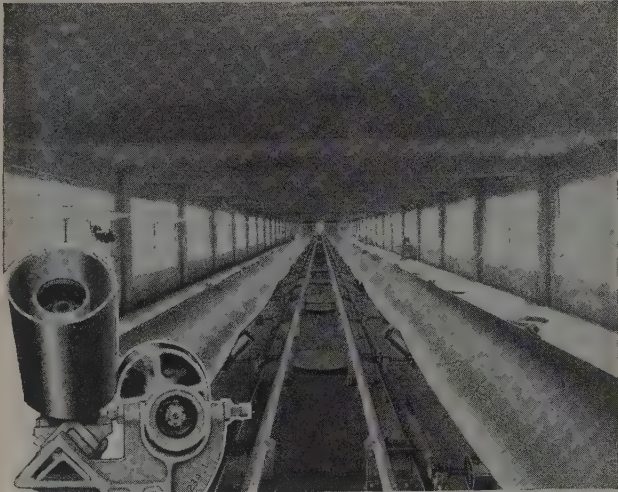
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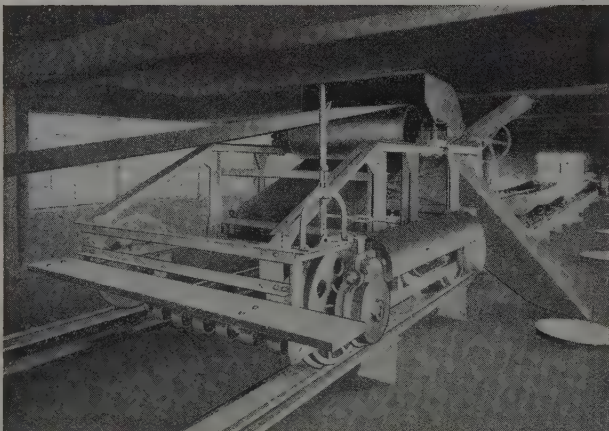


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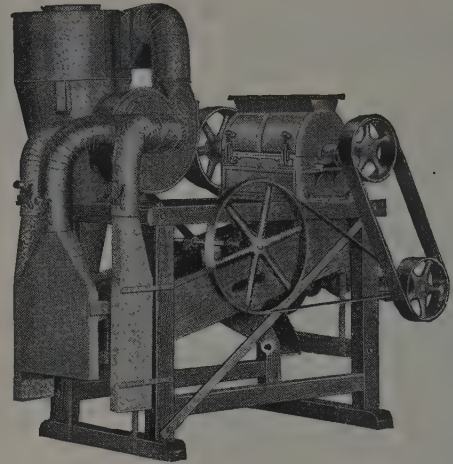
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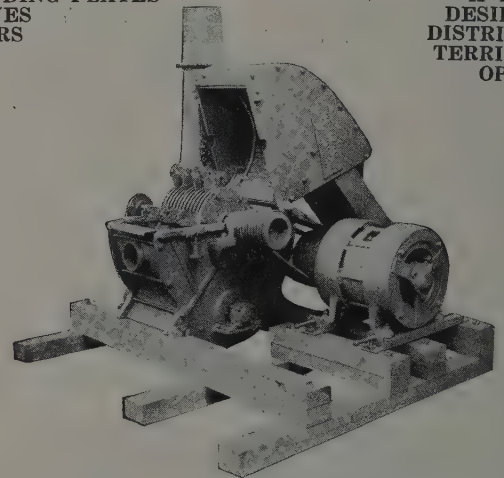
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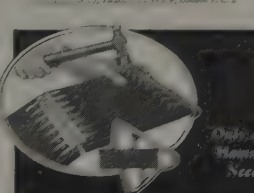
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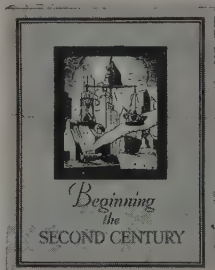


A CENTURY ago, crude weighing devices challenged Yankee ingenuity

Leisurely was the pace of industry a century ago—judged by modern standards. Yet the barter and trade of that deliberate era was hampered by cumbersome, inaccurate weighing devices. With the unwieldy steel-yard, weighing was a task both tedious and uncertain of results. Such were the conditions confronting Thaddeus Fairbanks, buying hemp in St. Johnsbury, Vermont, in 1830. Revolted against these inadequate weighing methods, his ingenious mind conceived the system of weights and levers which is the basic principle of all modern scales.

1930 begins the Second Century of the business organization that Thaddeus Fairbanks founded upon his invention. From his first platform scale, used for weighing hemp-laden carts, have developed the many perfected Fairbanks Scales that serve so well the varied needs of industry. Delicate instruments that register a hair's weight.

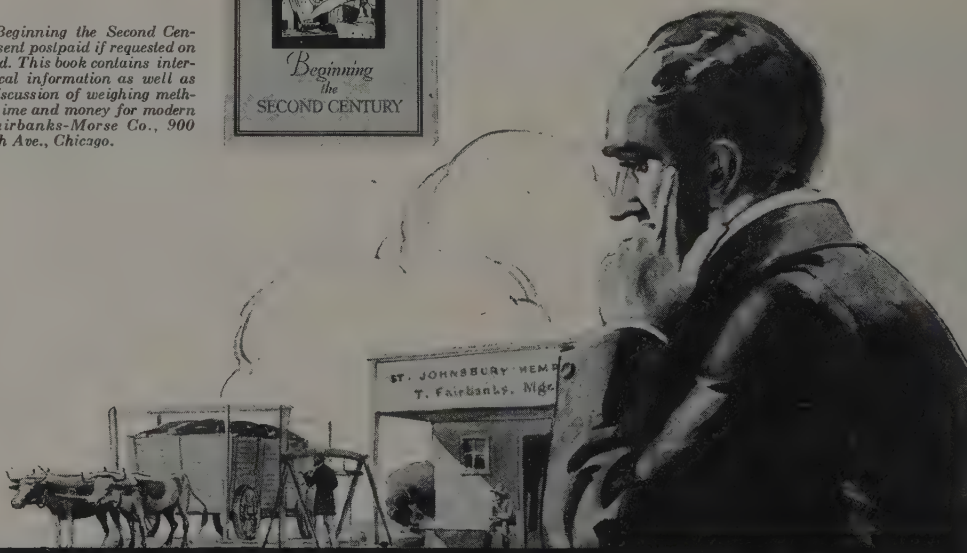
A copy of "Beginning the Second Century" will be sent postpaid if requested on your letterhead. This book contains interesting historical information as well as a practical discussion of weighing methods that save time and money for modern industry. Fairbanks-Morse Co., 900 South Wabash Ave., Chicago.



Scales that count small parts (bolts, washers, etc.) with uncanny accuracy. Mammoth scales that easily weigh gigantic bulks totaling hundreds of tons. "Beam" scales and "dial" scales that are found in every branch of industry where quick, accurate weighing is essential.

But it is not for scales, alone, that Industry looks to Fairbanks-Morse. Application of the same sound manufacturing principles to other products has won for this organization a commanding position in several fields. Today, Fairbanks, Morse & Co. is known universally as the manufacturer of scales, Diesel engines, electric motors, generators, pumps and railway motor cars.

Most gratifying at the beginning of our Second Century is the unreserved confidence with which Industry regards every product bearing the Fairbanks-Morse name. It is our pledge that this confidence shall be deserved in the future as it has during the past 100 years.



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DIESEL ENGINES • MOTORS • PUMPS • SCALES

A monthly journal devoted to the elevator, grain, hay, feed and seed interests.

Official paper of the Illinois Grain Dealers Association.

Established in 1882.



Published on the fifteenth of each month by Mitchell Bros. Publishing Co., 431 So. Dearborn St., Chicago, Ill.

Subscription price, \$1.00 per year.

English and Foreign subscription, \$1.75 per year.

Established in 1882.

VOL. XLVIII

CHICAGO, ILLINOIS, MARCH 15, 1930

NO. 9

Efficient Grain Storage: Foundation of an Exceptional Dividend Record

Current Earnings of The Quaker Oats Company Indicate There's Real Economy in Generous Provision for Elevator Construction and Furnishings

DIRECTORS of The Quaker Oats Company this month approved a stock dividend of 20 per cent on common shares, and formal announcement has been made that earnings of this concern's plants in 1929 were \$8,735,204. Next month, an extra dividend of \$4 a share is to be paid.

Careful management and progressive merchandising technique have been great factors, of course, in the achievement represented by these figures. Tied in closely to the profit record, however, is the fact that each of this concern's elevator and mill units has been built for efficiency from top to bottom.

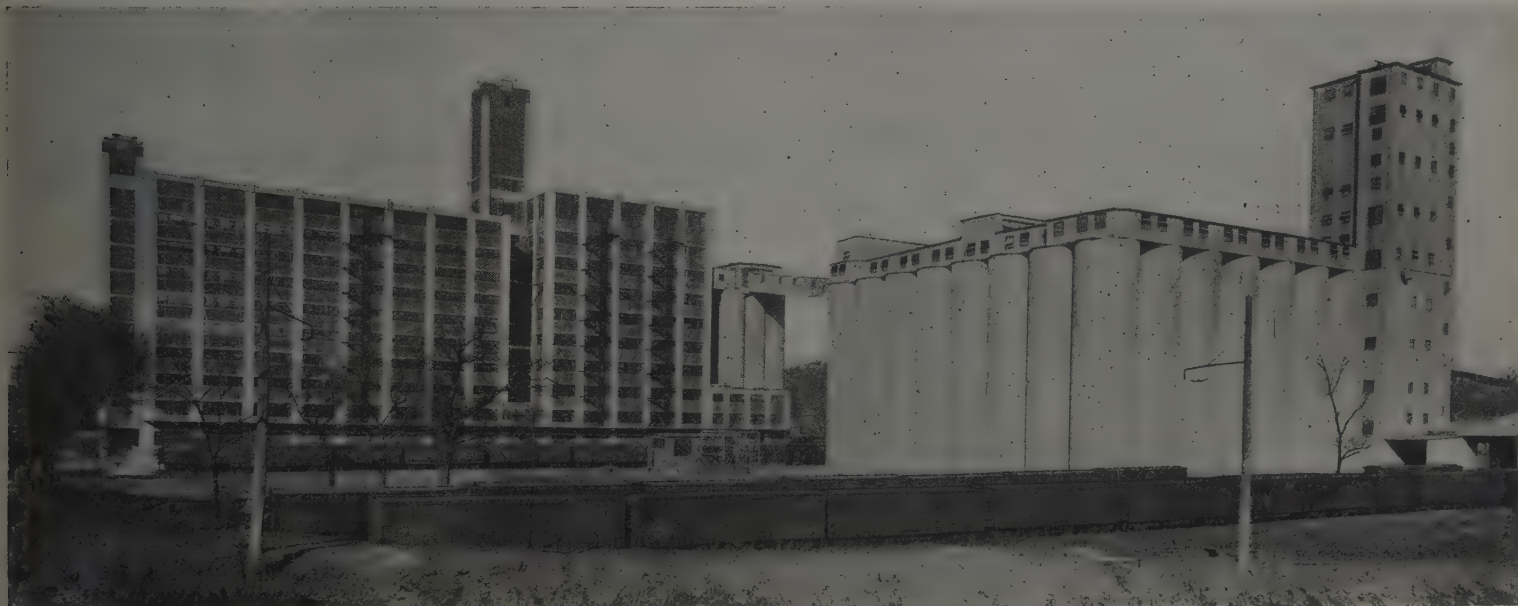
The new plant of The Quaker Oats Company, at

dumper house and train shed. The manufacturing complete line of the company's cereals and feed products. The illustration shows a view of the new buildings from the southwest. The entire plant was designed and constructed by the Leonard Construction Company of Chicago and New York including all unloading, elevating, conveying and mechanical equipment of the complete grain elevator and corn drier. The Quaker Oats Company's engineers designed and installed the mechanical equipment in the milling and package buildings.

Extensions to the original plant consist of a 2,000,000-bushel elevator with workhouse, car-dumper house and train shed. The manufacturing plant consists of a 10-story package building, 100

vator leg which discharges into a Bartlett & Snow Revolving Scalping Screen. The screen discharges into either of two 3,000-bushel garners, directly over two 2,500-bushel Fairbanks Morse Solid Lever Scales, with type registering beams. Turnhead spouts deliver grain direct from the scales to the bins that can be reached by spouting and to six 42-inch belt conveyors which fill the balance of the storage tanks.

The car-moving equipment consists of a Plymouth Gasoline Locomotive which not only places the cars on the car dumper, but brings the loaded cars from the storage yard to the dumper track. A pneumatic tube installed by the Kelly Cash & Carrier Company carries the car tickets to the work-



NEW PLANT OF THE QUAKER OATS COMPANY AT ST. JOSEPH, MO.

St. Joseph, Mo., is an extension to the Aunt Jemima Mills, subsidiary of the former concern, and is in keeping with the high class of buildings and equipment built by The Quaker Oats Company. It is entirely built of reinforced concrete, with steel sash and brick spandrel walls. The plant rests on an underground "forest" of Raymond Concrete Piles. The tower enclosing the water tank which supplies the automatic springlers, is typical of the best in modern industrial architecture in which attractive appearance and utility are combined.

The elevator group has been in full operation since July 10, 1929. The plant manufactures a

by 160 feet, a 10-story oatmeal mill building, 100 by 60 feet, a 10-story cleaning and drying house 100 by 40 feet, and blending bins 100 by 52 feet. An electrical sub-station is connected to the elevator and manufacturing buildings—including the old structures as well as new—by means of tunnels through which all service piping and electric wiring are carried.

The grain is unloaded by a Richardson Car Dumper, which dispatches the grain in a fraction of the time required by the old method. From the car dumper the grain is carried by means of belt conveyors to a 25,000-bushel capacity receiving ele-

house. The cars that are to be loaded with outgoing grain are handled by a No. 2 Caldwell Electric Car Spotter, located in the car shed. A pair of Clark Shovels for emergency unloading of cars, and a shipping spout with a Sandmeyer bifurcated end, for loading out grain, also are located in the car shed.

The 36-inch belt conveyors in the basement are reversible so that grain can be delivered to the shipping and turning leg in the workhouse at the south end of the elevator and also to a leg in the north end which elevates the grain needed in the mill, to a 36-inch belt conveyor, running to the blending bins in a steel bridge which is covered

with corrugated asbestos siding and roofing, with a reinforced concrete floor.

There is a 1,000-bushel-per-hour Hess Drier and cooler located in a building adjoining the elevator to the north which is served by two elevator legs, one delivering the wet corn to the garner over the drier, and the other elevating the dried corn so that it can be returned to the storage tanks. The corn is weighed as it enters the drier, and as it leaves, by means of two Hoopner Automatic Scales.

There is a Haughton Semi-automatic Passenger Elevator from the ground floor to the top of the work house, two large Haughton Freight Elevators in the package building as well as an employee elevator furnished by the Humphrey Elevator Company, in the corn-drier house.

The belt conveyor rolls are equipped with Timken Roller Bearings made of boiler tubing. All other bearings including those on the tippers are collar oiling. All conveyor rolls and transmission machinery were furnished by Sprout, Waldron & Co., of Muncy, Pa., and the Weller Manufacturing Company, Chicago. Other equipment came from the Darby Corporation of Kansas City.

The Hess Drier fans and the scalping reel which receives the grain as it leaves the receiving elevator head are driven by Morse Silent Chain Drives; these and all gear drives are enclosed in steel guards, which not only keep dust and dirt out of them but make it safe for men working around them. Much of the rubber belting was furnished by the Diamond Rubber Company, Inc., of Akron, Ohio, the Manhattan Rubber Company, and the New York Belting & Packing Company.

There is a complete system of Day Dust Collectors and sweepers throughout the dumper house, the work house, storage tanks, corn-drier building, the bridge connecting the storage tanks with blending bins, the blending bins, and cleaning and drier house installed by the Day company. All storage tanks are equipped with Zeleny Thermometers.

The motors are General Electrics, ranging from 5 to 125 horsepower, equipped with Electric Controller and Manufacturing Company Controllers. The elevator head shaft drives are equipped with Falk Herringbone Speed Reducers with Electric Controller & Manufacturing Company's Friction clutches. Each belt conveyor is driven by its own motor.

POOL PROPAGANDA ON BIG BUSINESS BASIS

Since 1925, the Manitoba Wheat Pool has been appropriating one-twentieth of a cent per bushel on all grain handled for educational purposes. The Alberta and Saskatchewan pools' "co-operative edu-

cation" funds also have been built up by generous allowances, and the rising generation of Canadians is growing up in an atmosphere of pool praise.

A reorganization of the boys' and girls' clubs in Manitoba is taking place this year, the general work of this nature coming so closely in touch with pool efforts that some co-ordination seems imperative. Specific support to the pool movement is given by the Manitoba government through a co-operative marketing board maintained by interest derived from the surplus of the Canada Wheat Board, amounting to \$112,000. A juvenile and adult library formed by the pool has a circulation of 10 readers per book.

For the past two years, co-operative schools have been conducted by the Saskatchewan pool in various parts of its province. Banquets and picnics are promoted by this pool to emphasize the social side of pooling. Radio is used extensively to broadcast pool principles and announcements which are sandwiched in between musical numbers. The number of pool pamphlets, etc., is legion.

In Alberta the pool and government agencies work together closely to spread the gospel of pooling. The Alberta government has given assistance to the co-operative movement in the province by appointing D. M. Malin to a newly established position, that of supervisor of co-operative activities. Originally two master committees were set up to co-ordinate educational co-operative work in the province of Alberta, namely, the Master Consumers Committee and the Master Producers Committee. The experience of these bodies showed that there was unnecessary duplication and at a meeting held last fall, it was decided to form one committee to be known as the Alberta Co-operative Council.

The co-operative council now consists of one member of the board of each pool, one member of the board of the co-operative wholesale, one trustee of the wheat surplus fund, and three members of the United Farmers of Alberta. The purposes of the council are: (1) Development of co-operative education; (2) the co-ordinating of activities of co-operatives; (3) acting as the representative of co-operative bodies in Alberta.

This council forms a link between the co-operatives and the government and outside agencies. The funds acquired by the council are furnished by the wheat board surplus. The capital of this fund now stands at \$116,000.

Provision has been made by the pool workers to propagandize non-English speaking farmers in Canada. Shown herewith is a cartoon, originally published in the *Scoop Shovel*, which interprets the grain trade situation in melodramatic fashion for the pool public.



THE POOL IN HEROIC LIGHT: A CO-OPERATIVE CARTOON

Dear Jim:—

So Begins a Letter of Friendly and Expert Advice on Scales Written to a Grain Dealer

By J. A. SCHMITZ

Weighmaster, Chicago Board of Trade

A GREENABLE to your request I have set forth in the following paragraphs some suggestions for the care and maintenance of your wagon and automatic scales which I hope will be of service to you. Because of their importance, I have included a paragraph on the keeping of records which is pertinent to the matter about which you ask.

Rust is the greatest enemy of wagon and motor truck scales, hence, you must keep your scale pit as dry as possible. If the pit of your scale is so located that water can seep in, you should provide an adequate drain, or adopt other measures for removing the water without delay. And, as the ordinary outdoor scale pit is prone to be damp, I would advise you to have the main bearings of your scale packed with grease. This will aid in keeping the vital parts free of rust. Also, be sure that your weigher keeps the scale parts free of matter that absorbs and harbors moisture. In addition, if you can, build a shelter for your scale to keep out rain.

Unlike wagons, motor trucks carry 75 per cent of their gross loads on their rear axles. Therefore, a scale designed expressly for wagon weighing is inadequate for motor truck weighing. Obviously, the concentration of so much of the load on one end of the scale causes overloading well beyond the rated capacity of the scale parts supporting that end.

This condition is augmented by the impact that results from starting and stopping the motor truck while it is on the scale. In consequence, I would strongly advise you to give some thought to replacing your present wagon scale if it is being used for weighing motor trucks of the heavier type.

Your scale should be tested with known weight of an amount equal to 10 per cent of its capacity. You should employ an experienced scale man to do this setting who will, of course, test the scale both loaded and empty. While the scale inspector is at your elevator it would be an opportune time for your weigher to secure, first hand, some helpful instruction on the care of scales. I cannot emphasize too strongly the importance of proper operation of automatic scales. Unless your weigher follows the instructions, recognized as necessary to insure good performance, the results of the weighing on your automatic scale will be unsatisfactory no matter how adequate the installation of the scale may be.

Such instructions include the following procedure: (a) Keep all parts of the scale clean, and free of obstructions. (b) See that the scale is in balance. (c) Check the scale weights to be certain that amounts of weights on the hanger, or in the weight box, correspond with the size of the drafts to be weighed; and make a permanent record of their number and value. (d) Read, and record in a bound book, the figures on the automatic register. (e) After starting the weighing, check the setting of the scale by weighing several drafts. In fact, the proper setting of the scale should be ascertained at least four times during the weighing of each car. (f) Check the stream of grain from scale to car on each load to be certain that all of the grain weighed reaches the car.

Impress on your weigher the value of records that have as their basis, system, uniformity and completeness. His records should be planned not only with the idea of assuring accuracy, but, also, of establishing their correctness, and the certain delivery of the grain to the car. I am persuaded that if you will heed these suggestions, and if the man who coopers your cars for grain will inspect each car, inside and outside, before he accepts and coopers it, the resultant improvement in your total weight results will justify the effort involved.

Council of Grain Exchanges Faces Farm-Relief Issue

Revision of Federal Farm Board Policy Finds Favor as Exchange Heads Confer in Chicago

RESPONDING to a call issued before the Federal Farm Board modified its wheat-price-fixing policy this month, 25 grain exchange executives met in Chicago March 5, to consider ways and means to meet the market crisis generated by general world conditions in the grain trade and by the action of the farm board.

Participating in the lively discussion at this closed meeting were: J. H. Caldwell and C. B. Rader, St. Louis; William Beatty, New York; A. L. Johnstone, Milwaukee; H. A. Butler, Omaha; S. P. Mason, Sioux City; J. A. Bunnell, F. Uhlmann, S. C. Harris, and L. N. Perrin, Chicago; A. D. Keilholtz and H. R. De Vore, Toledo; O. P. Deluse, Indianapolis; E. E. McConnell, Buffalo; D. J. Schuh, Cincinnati; H. S. Newell, Duluth; H. H. Dewey and B. E. Wrigley, Peoria; J. D. Kent, Des Moines; G. S. Case, J. McHugh, and C. T. Stevenson, Minneapolis; R. A. Jeanneret and F. A. Theis, Kansas City.

As to the results of the conference, the official "handout" to the daily press was that the exchange heads had agreed to withhold criticism of the farm board since (a) the board's policy had been modified

board, particularly to obtain accurate information on any storage space available in smaller market centers.

Chicago's public elevator space is jammed to the roofs, a survey indicated. There is enough wheat in Chicago to feed the entire state of Illinois for at least 34 weeks.

The situation in the Chicago market, as outlined by W. E. Hudson, chairman of the Board of Trade's warehousing committee, is that 40,538,000 bushels

is eating up the cash of holders of warehouse receipts. It is estimated that to hold grain a year in Chicago costs at least 21 cents a bushel, under present insurance rates, cost of handling, interest, and depreciation expenses.

Careful consideration also was given by the exchange leaders to Secretary Hyde's explanation of the Federal Farm Board's modified policy.

Previous authorization of the board for its Grain Stabilization Corporation to enter the market and purchase wheat at the board's loan basis prices announced in October was made because at that time the market was exhibiting panic symptoms, Mr. Hyde said.

This policy was dropped and the board took the modified policy of authorizing the stabilization corporation to discontinue buying wheat at loan basis prices and continue making purchases at market prices, the Secretary of Agriculture explained, because the market is now settling.

Buying at market prices also was authorized, Mr. Hyde explained, because paying the loan basis prices was attracting wheat to the terminals in undesirable quantities.

He said the board is attempting to assist farmers and at the same time to act in conformity with the law of supply and demand. The board, he said, is keeping to the law of supply and demand as closely as possible, although it is only to be expected that the estimates may possibly be off a cent or two in one direction or the other.

If the few farmers who still possess their own grain want to get the board's loan basis prices,



J. H. CALDWELL, ST. LOUIS, MO.

—that is, withdrawal effected of the fixed price for wheat to be paid to co-operatives only; and (b) the board's chairman, Alexander Legge seemed to have been attempting price stabilization in good faith but with conditions against him.

However, it is known that this conservative expression, while sincere, in reality represented not a final truce with "farm relief" forces, but a temporary one. To interpret bluntly, the farm board and its subsidiaries are on probation. The future attitude of the grain trade toward them must depend on whether the left wing of the farm relief forces as represented by S. R. McKelvie, or the conservative side led by Alexander Legge, controls the market action of the Governmental agencies.

Furthermore, the seriousness of the shortage in storage space in terminal markets, and the threat of embargo on grain shipments were features not glossed over at the council table. As the exchange officials in Chicago were receiving reports on these subjects, Mr. Legge released a statement in Washington, D. C., that unless farmers hold back their grain until storage is available, a real embargo would be initiated by the board. He said the board is endeavoring to avoid such drastic measures during the present grain emergency, but that if railroads are unable to unload cars of grain at the terminals an embargo would become imperative.

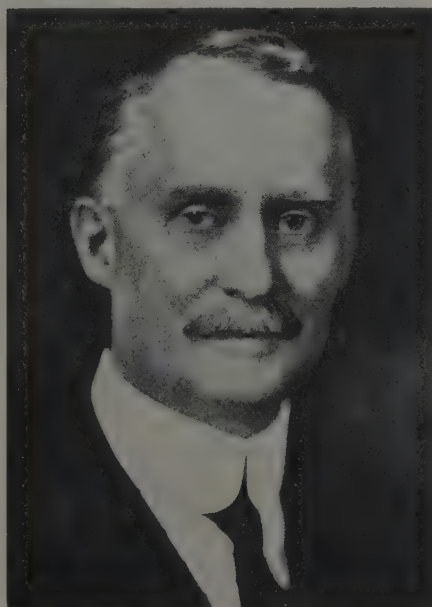
A questionnaire has been sent out by the farm



R. A. JEANNERET, KANSAS CITY, MO.

of grain are housed in Chicago elevators. An additional 5,932,000 bushels are afloat in ships.

Of the 18,580,000 bushel capacity of the 13 public elevators in which the grain movement has normally been carried, 16,348,000 bushels are now in storage. A leeway of 10 per cent is usually required for public elevator turnover of moving grain. In the face of this, the Rock Island elevator A, at Sixteenth Street, with a capacity of 1,250,000



WILLIAM BEATTY, NEW YORK, N. Y.

bushels, is being torn down and all its grain in storage, estimated to be 824,000 bushels, must be moved elsewhere by May 1. This is to make way for railroad terminal improvements as a result of the river straightening.

Grain is now in storage in Chicago which could be had for the mere payment of charges, it was said. The overhead, just like a farm owner's taxes,



H. H. DEWEY, PEORIA, ILL.

that is a matter to be taken up with the Farmers National Grain Corporation, Mr. Hyde said.

The farm board, the Secretary of Agriculture explained, is going to continue making loans to the Farmers National Grain Corporation on the loan basis for wheat announced in October.

After adjournment of the exchange council meeting, formal announcement was made by the Federal Farm Board that it would back up its market agencies "to the limit." The board's statement, which in view of world grain trade conditions, did not bull the market as much as might have been expected, read as follows:

"The grain stabilization corporation will continue buying wheat at the market and remove whatever additional quantity that may be necessary to relieve the pressure and prevent any considerable decline in wheat prices. The farm board is prepared to advance to this farmers' organization whatever funds are necessary for that purpose."

"The stabilization corporation is being accused of speculating in the grain market. There is no foundation in fact for such statement. The stabilization corporation is prepared and expects to take delivery of all grain purchased on futures contracts and merchandise it as the market conditions will permit."

The statement, which was made public by Chair-

man Alexander Legge, was interpreted as meaning that unlimited funds will be available for the stabilization corporation. Of the \$150,000,000 appropriation thus far made by Congress from the \$500,000,000 revolving loan fund authorized under the farm relief act, only about \$75,000,000 has been used. The board thus has for immediate use the remaining \$75,000,000 and also can get additional funds from Congress at any time necessary. President Hoover now has asked \$100,000,000 more for its use. It has been indicated that the board probably will ask for an additional \$50,000,000 dollars before congress adjourns for the use during the next fiscal year.

It was believed by members of the farm board that the mere declaration that ample funds will

be provided will go far to steady the grain market. Further declines in prices, it is thought, may be checked without requiring more than moderate purchases. With this stabilizing influence members are confident that prices will rise at least to the loan value fixed upon wheat before a great while as a result of an anticipated foreign demand.

The board, while buying wheat at the market price, will continue to make loans to co-operatives at the higher loan value.

Wheat which is being purchased by the stabilization corporation will be stored indefinitely to await disposition at such time as the market can absorb it if possible without resulting in a loss to the government. Actual delivery of wheat purchased in the futures market will be required, it is made

evident in today's statement of the farm board.

The visible supply of wheat is estimated at 162,000,000 bushels. If necessary, the grain stabilization corporation apparently is prepared to take control of up to perhaps 150,000,000 bushels. The corporation already has bought in excess of 25,000,000 bushels. Mr. Legge denied suggestions that the operations would have the aspect of an attempt to corner the market.

The statement followed close on the heels of Washington advices saying that it was practically impossible for American wheat to be shipped for China for the relief of the famine stricken areas, as proposed by the McMaster bill. Large quantities of grain are now in storage at Peiping but cannot be moved owing to lack of transportation.

The Kansas City Market - - -

In the following review of receipts at America's largest Hard Red Winter wheat market, Mr. Morris not only analyzes the various types of grain received, but gives first-hand observations on how troublesome grading factors can be eliminated.

DURING the seven months period from July 1, 1929, to January 31, 1930, inclusive, there have been inspected and graded on the Kansas City market 51,870 cars of wheat receipts. Kansas City is the largest Hard Red Winter wheat market in the Southwest and also in the United States. It is a surplus market and gathers its receipts from a wide territory. What is true with reference to the inspection of wheat in Kansas City is undoubtedly typical of the inspection of Hard Red Winter wheat in the Southwest. There is shown in the following table the inspection of wheat at Kansas City by classes on a percentage basis during the seven months period as follows:

	Carlott Inspections	Percentage
Hard Red Winter	47,481	91.6%
Soft Red Winter	2,010	3.8%
Mixed Wheat	1,916	3.7%
All Other Classes	463	0.9%

The summer months of 1929 while the wheat was being harvested were favorable for the operation of the combine as there were no prolonged periods of rain as was the case during the years of 1927 and 1928. It is true that many cars of early-combined wheat reached the market carrying a moisture content so high as to lower its grade from what it should have graded on its test weight per bushel factor. However, with favorable weather prevailing and the knowledge which is general among producers that too early combining of the wheat results in damaged wheat, this year's crop has been received on the market normally free from damaged wheat.

It has been a crop which has fallen somewhat below normal in its test weight per bushel factor but comparatively free from damaged and out-of-condition grain. During the first seven months of the crop movement up to February 1, 1930, 78.9 per cent has graded No. 1, No. 2 and No. 3, compared with 79.6 per cent of similar grades received on the market during the past 10 years.

The percentage of No. 1, No. 2, and No. 3 grades at the Kansas City market for a series of years, with which are shown the receipts for the first seven months of the 1929 crop, is given in the following table:

1920	78.3%
1921	78.6%
1922	73.8%
1923	57.9%
1924	92.1%
1925	89.3%
1926	93.2%
1927	75.4%
1928	77.9%
1929 (seven months)	78.9%

The moisture content of dry wheat is approximately 12 per cent. The Federal wheat standards permit an excess of moisture in the numerical grades over air-dried wheat ranging from 1 per cent in No. 1, and to 3.5 per cent in Nos. 4 and 5. There is no doubt but that the excessive moisture which

wheat carries is directly responsible for much of the low-grade Hard Red Winter wheat received on southwestern markets. Excess moisture is directly responsible for heat damaged wheat, one of the most serious factors present in wheat to lower its grade. Other grading factors such as sprouted kernels, skin-burnt and sick wheat, musty and sour wheat, hot or heating wheat, can be attributed to the presence of excessive moisture in wheat at some stage in its handling.

Excess moisture in wheat comes from two sources; first, rain during the harvesting season; second, wheat combined before thoroughly mature. Tests which were conducted in the Southwest during the 1928 harvest showed that a considerable volume of wheat was harvested while it was too damp to meet the requirements for the higher grades and for safe storage in bins. Damp wheat is normally discounted on the markets because of the risk involved in storage. Producers during the past few years have learned that it is not a good practice to combine wheat before it is thoroughly dry.

The information which is given in the following table is taken from records of the Kansas City office of Grain Standardization and the office of Federal Grain Supervision and shows the moisture content of wheat receipts on the Kansas City market during the months of July, August and September for a series of years:

Year	No. of Samples Tested	Average Moisture Content
1912	735	12.5%
1914	467	11.5%
1915	484	14.9%
1916	492	11.6%
1926	1,765	12.1%
1927	2,922	14.4%
1928	1,785	13.9%
1929	1,355	13.4%

The above information is for wheat receipts during the months of July, August and September, months of heavy movement of new wheat. During the above period, the Hard Red Winter wheat territory of the Southwest has had three years of abnormally wet harvests, a fact well known to producers and to the grain and milling trade. Three of the eight years listed in the above table show wheat of high moisture content shipped to market during the months of July, August and September containing an average moisture content which would not permit it to grade in the higher grades.

During the same years of high moisture, mainly 1915, 1927 and 1928, it is a well-known fact that there was a high percentage of sprouted wheat, skin-burnt or sick wheat, musty wheat, and other difficulties which can be traced to an excessive moisture content. Troublesome grading factors, as well as storage and handling problems, can be largely eliminated if wheat is harvested and marketed in a dry condition. Except during the first days of combining when wheat is not thoroughly

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mature or when combining is done too early in the morning after heavy dew or too soon after rains, it is not necessary for combine wheat to contain the excessive moisture content which will later contribute to its ills. This is well illustrated by the receipts on the Kansas City market during the season of 1926, a year in which the combine was generally used and one in which over 93 per cent of the entire receipts graded Nos. 1, 2 and 3, the milling grades in the wheat standards.

WHEAT CHAMPION PRODUCES NEW HARD RED WINTER

A new kind of beardless Hard Red Winter wheat, known as Smithsonian, has been developed by C. Edson Smith, twice world's wheat champion. The new variety produced by Mr. Smith in his experimental plots in the Bitter Root valley makes an excellent bread product under milling and baking tests conducted in Government laboratories at Washington, according to reports of officials of the department of agriculture.

A report from D. A. Coleman, in charge of the milling, baking, and chemical laboratory at Washington, states that the milling of the wheat sample was exceptional as the flour yield was almost 75 per cent. The quality of the flour was reported as excellent, being lighter in color than any other Hard Red Winter wheat sample received this year. The reports also contained the information that it demonstrated the best performance of any sample of Red Winter wheat handled in the department this year. Mr. Coleman found only one fault, saying:

"The flour has only one drawback, we believe, and that is it did not react to the presence of an oxidizing agent. In other words, it did not respond as Hard Red Winter wheat flours usually do to the influence of so-called flour improvers. On this basis the milling companies of today would probably reject it as suitable for milling purposes, as they like the mill wheat that will produce flour which will demonstrate a noticeable improvement when bleached or when treated with the usual run of flour improvers."

The eight-pound sample of Smithsonian wheat which Mr. Smith turned over to the Department of Agriculture agents at Chicago recently, and from which the experiments were made, was field run, and not the hand-picked samples such as are entered in the International Grain Show.

"A dozen or more years ago, after growing the bearded or owned varieties of Hard Red Winter wheat," Mr. Smith said, "I set out to develop a new variety of Hard Red Winter wheat minus the beards or owns, equal to the Turkey varieties, then commonly grown."

"I have met with varied success until some five years ago, when I succeeded in producing the Smithsonian, which possessed some very meritorious characteristics, aside from being winter hardy and an exceedingly heavy header in this locality."

ITALY is taking about 10 per cent of the American wheat bought a year ago.

March 15, 1930

McKelvie Continues Attack On Futures Trading System

But Dr. James E. Boyle of Cornell

University Has a Word to Say in Its Favor



The controversy between the Federal Farm Board and the established grain trade continues to grow in volume day by day. Wheat prices, lingering below the level ordained by the farm board, have been taken in some quarters as an indication of faultiness in the board's policy.

Mr. McKelvie, not a whit discouraged by the recent drop in wheat prices which the farm board found impossible to check, says the futures market must go. And in this article, Dr. Boyle of Cornell tells why it must not.

The argument continues but the situation remains unchanged.

SPEAKING before the twenty-third annual convention of the Farmers Elevator Association of Minnesota, Samuel R. McKelvie, grain member of the Federal Farm Board, reiterated his charges that 40 per cent of all grain sales are speculative and that this volume of speculation results in tremendous expense and loss, borne in the long run by the farmers.

"If speculation is necessary, as the grain trade claims," he said, "the country has a right to know what it costs. We charge that commissions and losses from speculation amount to 25 cents a bushel on all wheat raised in this country. And the farmer is bearing the costs of our present marketing systems."

While Mr. McKelvie was carrying on his campaign against futures trading, a new futures market dealing with hogs was opened on the Chicago Board of Trade. This market presents problems which are not to be found when dealing in relatively imperishable commodities, as wheat, rye, corn, cotton, etc., which can be stored for long periods.

Hogs, however, once prepared for market, must be killed in a short time. Large receipts of hogs in a few days naturally meant a fall in price; a farmer west of the Mississippi who shipped to the market here, under former conditions, took this risk. The advantage to him, if he chooses to take advantage of the futures market, is that he will know what his shipment will bring per 100 pounds before he begins to feed.

A carload of hogs is the trading unit on the new market with the weight arbitrarily fixed at 16,500 pounds. This seller is allowed a tolerance of 1,500 pounds either way. He may deliver 15,000 pounds or 18,000 pounds, but adjustment for the excess or shortage of weight must be made at the prevailing price on the cash market when delivery is made.

This new hog market, which Mr. McKelvie probably considers a step in the wrong direction, will serve to strengthen futures trading, in the opinion of many who favor that type of market. Included among these supporters is Dr. James E. Boyle, of Cornell University, who has prepared a paper on "How Futures Trading Stabilizes Prices." It follows in full:

STABILIZING GRAIN PRICES

On the Chicago Board of Trade there are three distinct but related types of trading going on every day. It is necessary to note the differences in these three types of trading before examining the effect of future trading on price. First, we have trading in what is called cash or spot grain. Here the grain is actually in Chicago and is represented by a type sample. The second kind of trading is called "to arrive." It means the buying for deferred shipment of grain at some country shipping point. The bid for such grain specifies the time of shipment, such as "10 days," "20 days," and so on. Third, there is

the future trading, or trading in grain contracts. These contracts call for delivery of definite grade and amount of grain, at a specified time and price. The cash grain trade is carried on on the trading floor of the exchange, and centers about the 52 sample tables. The "to arrive" business is conducted at a certain post or desk near the sample tables, quotations being displayed on a large black-board. Future trading is conducted in the so-called pits, corresponding to the rings used in the Old World. There are separate pits for wheat, corn, oats, cotton and provisions (lard, short ribs, salt pork).

Future trading is the only spectacular trading on the exchange, and hence it has considerable notoriety. Indeed, so important is it from the news standpoint that the great city dailies keep at the exchange permanent desks and expert newspaper men trained for this type of journalism. One of these papers has kept the same man on the job for over 30 years. There are few secrets on such a market.

The grain crop of the United States is 5,000,000,



DR. JAMES E. BOYLE

000 bushels; of Canada 1,000,000,000 bushels. This whole crop of 6,000,000,000 bushels is traded in for future delivery on the Chicago Board of Trade, since all large traders in both countries hedge their cash grain business and their "to arrive" business on the Chicago Board of Trade, thus tying the three types of trading together. Chicago has 85 per cent of all the future trading in the United States, the rest being divided among a half dozen markets. Chicago's share amounts to 20,000,000,000 bushels a year, or four times the United States grain crop; or three and a third times the crop of both Canada and the United States.

Future trading, on account of its large volume and for other reasons, has been frequently condemned. Official and unofficial investigations during the past 30 or 40 years, however, indicate that future trading is a benefit to producers, dealers, and consumers because it tends to reduce the size of price fluctuations. In short, the effect is to stabilize prices. Both the economic principles and the economic facts of future trading confirm this statement. In fact, both the cotton and the grain exchanges carry on their future trading under the regulations of the United States Department of Agriculture. During this past year, eight new commodity exchanges have been started in the United States alone, each providing for price insurance by hedging in futures. This is strong evidence as to the service of such institutions in lessening price risks. The eight new exchanges are raw silk, metal,

hides, live poultry, all four in New York; dressed poultry in Chicago; cottonseed in Memphis; mill feed in St. Louis, and grain in Portland, Ore.

Turn first to the facts of economic evolution to see whether future trading stabilizes prices or causes prices to fluctuate more violently.

Future trading in cotton is one of the oldest forms of future trading in the world. The record of its effect on cotton prices is clear-cut and convincing. Writing in the year 1886, Mr. Thomas Ellison, the greatest English authority on cotton, said:

"The establishment of the system of selling futures led to a complete change in the method of moving the cotton crop from America to Europe. The risks incidental to the business were reduced to a minimum, and by and by the charges for conducting the business were greatly diminished."

The risks referred to by this writer were the great price fluctuations before the days of future trading.

Some 20 years later, that is, in the years 1900-1908 our Federal Government made the most thorough investigation of future trading on cotton exchanges ever conducted and reached the following conclusions:

"Dealings in cotton must always be accompanied by risk either to the producer, the merchant middleman, the speculator, or the spinner. What is the equitable distribution of these risks? It is a general principle that much of the risk should properly be borne by the speculative class, that is, by those who neither produce nor spin cotton, but who are interested simply in making a profit out of the rise or fall of its price. The function of the speculator is to forecast future natural conditions affecting supply and demand, to obtain as accurate information thereon as possible, to make the price for future deliveries based on such information, and thus to discount in advance as far as possible, for the benefit of the trade in general, the effect of such future conditions, and thereby keep prices free from violent fluctuations which otherwise would occur from unforeseen natural causes."

Skip another 20 years, and come down to the year 1929. We have the cotton farmer's testimony on the subject. In the *Staple Cotton Review*, official organ of the largest successful cotton co-operative in America, for March, 1929, we find these statements:

"So intimately associated are spots and futures in the daily routine of cotton transactions, that the merchants and the manufacturers would be put to it to carry on their operations without the protection afforded by hedges on the board.

"The outstanding feature of our hedge operations is that we bring the speculative aspects of the transactions down to the irreducible minimum."

"Yes," says this organization, "the cotton exchange can be made to serve the cotton grower." Arkansas, the last of the Southern States to do so, has just repealed the anti-future law, thus bringing to an end a quarter century of anti-future legislation in the cotton states.

Considerable testimony from different sources has now been given on future trading in cotton. We must pass more quickly over some 12 or 15 other commodities. Future trading in grain in a formal way, began on the exchanges about the time of the Civil War, and was in large part an outgrowth of the simple form of the cash and the "to arrive" business which had then been in force for 20 or 30 years. The extremely violent price fluctuations of the years 1800 to 1860 were greatly reduced by the organized future trading.

Economic evolution in the grain trade produced first the cash business, then the "to arrive" business, and finally the future trading, which rounded out and supplemented the other two and tied the three together.

Other business and farming interests than grain, saw the benefits of future trading in stabilizing prices and in reducing risks, and these other interests began to organize exchanges for future trading.

If the roll is called of these various commodity exchanges which now have future trading, the list

is seen to be a very long and impressive one. This list is good evidence that this practice is economically, commercially and legally sound.

Let us call the roll.

Grain, cotton, and coffee answer the roll first. Exchanges for handling these three commodities have long been established here and in Europe. They have the same dignity and financial standing as the great banks of our country. For many decades they have been the home of future trading.

Sugar comes next. The World War closed the sugar exchanges of Paris and other European cities. A sugar exchange was started in New York in 1914, and now is by far the largest sugar exchange in the world. Future trading forms a vital part of its activities. Since sugar and coffee go together, New York has one institution known as the New York Coffee and Sugar Exchange.

In 1919 and 1920 future trading in butter and eggs was started on the Chicago and the New York Mercantile Exchanges.

Continuing our roll call, we find that Chicago next started future trading in live poultry. In November, 1923, the farmers, dealers and millers about New Orleans started a rice exchange, with

future trading, the three purposes of which were (1) to make rice a more liquid commodity; (2) to stabilize rice prices; (3) to provide means for hedging. A cocoa exchange was started in New York in 1923. Its future trading is now the cocoa price barometer of the world. In 1926 a rubber exchange was organized in New York. It has also come to be the world's price barometer for rubber. In 1928 came the raw silk exchange in New York City. Now our three greatest imports—sugar, silk, rubber—all have their prices stabilized by future trading. The National Metal Exchange was established in New York in 1928, with its futures in tin and other metals.

In the early part of 1929 came four additional exchanges with future trading, namely, cottonseed in Memphis; mill feed in St. Louis; hides and skins in New York; grain in Portland.

The tide of economic evolution moves irresistibly onward. Those commodities which can be graded, standardized, and stored are made more and more the subjects of future trading on the organized exchanges. In every case experience has demonstrated that price stabilization has been one of the major results thereby secured.

Hints for the Elevator Millwright

Mr. Davis Employs a Unique Method in Stopping Small Flood Caused by Broken Water Pipe

By JAMES F. HOBART

MR. DAVIS realized that he had a real task before him when he entered the elevator of Mr. Ashley and saw what seemed to be a miniature flood. Mr. Ashley wasted no words in explaining the situation.

"It happened in this way," said Mr. Ashley, as Mr. Davis was looking at a two-inch steel water-pipe from which a stream of water was gushing, evidently under 80 or 90 pounds pressure. "We were excavating for a bit of new foundation and had just uncovered the water-pipe and its stop-valve when that 500-pound boulder slipped out of the bank, fell upon the pipe and broke it off close to the stop valve. Now, we can't shut off the water so as to make repairs, for nobody knows where there is another valve in that pipe except the water company and it would take a week to get action from them. We have had to build a coffer-dam of grain sacks and dirt to prevent flooding the elevator sinks and everything is shut down for lack of water for the steam boiler."

Mr. Davis set to work at once. He had a carpenter plane and hewed out a soft wood plug, one large enough to close the end of the broken pipe. The plug was made long and slender, tapering gradually to a point. The tapered portion was made about two feet long. Half a foot of squared stick was left adjacent to the taper. A hole was bored through the square end of the plug and a similar hole was made about three inches from one end of a piece of a two-by-four inch scantling, about eight feet long and the plug and scantling were fastened together with a single one-half inch bolt, which was loosely screwed home with the fingers.

Three men manned the scantling, juggled the thin end of the long plug into the stream of water, worked the plug into the pipe, then the three men forced the plug into the pipe as far as possible, almost stopping the flow of water, but the stream was halted sufficiently to permit a workman to enter the excavation and drive the plug tightly with a sledge hammer.

"Now we have got its number" said Big Bill. "Get that gate valve off of the remaining portion of the pipe, cut a thread on the plugged pipe and then we will see about getting that plug out again."

The broken end of the pipe was hack-sawed square, threaded, and an attempt made to screw on the gate valve again, but it was found that the valve had been so badly damaged by the boulder as to be useless until after it could be repaired. Search was made for another two-inch gate valve, but one could not be found.

"That queers our game," said Big Bill. "I was

going to put the gate valve in place, then bore and chip into the end of the wooden plug until the water pressure drove the remains of the plug out of the pipe, but that can't be done with a glove stop valve so we will have to find some other method of getting the plug out."

A rough wooden box, about two feet long, 10 inches wide and deep, open on top, was built around the pipe about two feet from its plugged end. A cake of ice and a sack of coarse salt were procured and a layer of crushed ice was placed in the bottom of the rough box, then a pint or so of salt was sprinkled as evenly as possible over the ice and additional layers of ice and salt placed in the box until it was full, finishing, in each instance, with a sprinkling of salt. The ice was crushed by placing a piece in a grain sack, smashing the sack against the floor a couple of times and then finishing the crushing by pounding the ice in the sack with a carpenter's mallet until the ice-fragments were smaller than hens' eggs.

"The finer the ice, the quicker the freezing," said Big Bill to the man who was pounding the ice. A chemical action was at once started between the salt and the ice, which caused the latter to melt. But as ice cannot melt without absorbing a large amount of heat which becomes latent, the melting ice was forced to seize heat from any and all sources, consequently the water in the plugged pipe was robbed of its heat until it froze solid.

While the freezing above described was going on, Mr. Davis set a man to boring a small hole in the wooden plug which had been driven inside of the pipe. A small hole was bored deep enough to "run out" of a taper side of the long plug and allow water to escape slowly through the hole thus bored. The local millwright found that his three-eighths-inch "long bit" would run out of the plug and permit a stream of water to escape through the small hole bored, which Mr. Davis at once ordered closed by a whittled "cider spigot" plug. As the pipe-freezing progressed, it was frequently tested by momentarily removing the little spigot and soon, the water was observed to issue with less and less force. In less than an hour, no water at all came forth, and the carpenter at once set about boring and chiseling out the wooden plug. The freezing mixture was allowed to remain around the pipe until the last fragment of wood had been removed from the pipe, after which a stop valve of the globe type was screwed upon the end of the pipe.

As soon as the stop valve was in place, the freezing apparatus was knocked away from the pipe and

in a very short time, atmospheric temperature melted the ice-plug sufficiently to cause water leakage and in a very short time pressure and temperature of the water inside the pipe caused the ice-plug to be melted entirely away. The stop valve was then closed and the broken pipe coupled up again, means for doing so having been provided during the freezing and plugging of the water pipe.

ARRANGING A FEED WATER SUPPLY

"Before you leave, Mr. Davis, I wish you would look over a water proposition on which I have been working. That little brook just back of the elevator always has more water in it, even during the driest time, than is sufficient for boiler feeding and for supplying the automatic sprinklers, although there is not enough water to pay for putting in a water wheel. The water received by the service pipe is pretty expensive and tests show that the brook water is far better for use in boilers than is the service pipe water. I have tried several times to pump the brook water into the boilers via the overhead 35,000-gallon tank, but drift, leaves and grass put the pump out of business until the pipes can be cleaned out. How can the brook water be made available for the boiler and the tank?"

"It seems to me, Mr. Ashley, that it would be the proper thing to put in a small dam, capable of impounding at least water enough to fill the overhead storage tank. Perhaps it would also prove profitable to make the dam large enough to overflow sufficient territory to permit harvesting a certain quantity of ice, as your elevator is in a latitude which permits natural ice making. Would not the adjoining city prove a profitable market for a considerable quantity of ice?"

"Perhaps a closer study of the possible market may show that it would be profitable to make the ice in a separate pool, filled with strained water, in which case water could be strained from the little mill pond and allowed to run into the storage space, either for handling water from pond to screen or strainer. But, do not make the mistake of pumping the water against an enclosed screen or filter, for such apparatus will not meet the demand made upon it. Place the wire cloth screens nearly horizontal, or perhaps inclined slightly uphill above the pure water storage space, or in such a position that strained water will flow by gravity to the storage space. Arrange the strainer pump to force water to and over the top of the wire-covered strainer space, thus according a chance for the strained-out dirt and other matter to be washed over and off of the wire cloth strainers, which will always expose a clean surface to be strained."

"From the strained water storage, the liquid may be piped at will, either to the boilers or to the storage overhead tank. The trick of the entire matter is to place the water strainers in such position that they will be washed clean automatically, when they may become covered with dirt or drift. It will probably be necessary occasionally to use brushes on the wire-cloth strainer surface, but not often, if made self-cleaning as described above. In this way, Mr. Ashley, you can always have a plentiful supply of good water, either for boilers, summer bathing, or for winter ice-making."

"Mr. Davis," called Mr. Dixon as Big Bill stepped from his car upon his return from Mr. Ashley's elevator; "we are up against it again and now have to find a whole lot of sacked grain storage capacity, 'P. D. Q.' There is plenty of storage space in that building just across the alley, but it is about four feet down to the street or alley level from this floor, and about as far up to the floor level in the other building. The authorities won't let me close this alley with a bridge, for I tried to do that some time ago, and failed. I have been thinking of elevating the filled sacks to the second story and then chuting the sacks down to the first floor of the building across the alley. That would work all right, save for the fact that much of the filled sacks have to be trucked back here again, for box car shipment."

"Mr. Dixon, if trucking service between the two floors is all you need, then why not put in a sort of drawbridge between this platform and the one

across the alley. Just what is the width of that anyway?"

"It is about 20 feet from this platform to the one across the alley, but we are only required to keep open a nine foot passageway."

"Then, Mr. Dixon, here is what you might do. Have a sort of pivot-post made, either a casting or a 10-inch pipe with a flange built upon it. Plant this post vertically, midway between these two platforms, with the flange on the post, just clear of the ground. Then, build a light cantilever runway 20 feet long, supported by the big flange and

by the top of the post. Support the drawbridge upon friction rolls or ball bearings and arrange its ends to ride upon supports so as little trucking load will come upon the post and flange. Then, you can run motor trucks or hand trucks across, or, you can put in a ramp or toll-carriers by means of which sacked grain or almost any thing else, could be run across the alley without trucking. Each of the three sections of the ramp could be separately or connectedly driven and arranged to automatically stop when the little drawbridge swung aside to permit alley traffic to pass."

offering the least possible obstruction to the passage of a stroke between air terminals and ground. The most direct path is, in general, the best, and there should be no sharp bends or loops for the lightning to jump across. The obstruction is practically inversely as the number of widely separated paths, so from each air terminal there should be at least two paths to ground, and more if practicable. The number of paths is increased and the obstruction lessened by connecting the conductors to form a cage inclosing the building.

When a stroke is about to take place to earth the surrounding surface of the ground for a radius of several miles carries an electric charge. As the discharge takes place this surface charge moves radially toward the ground end of the air path, forming an electric current in the ground. Near the point where the discharge enters the ground the current density becomes high, and if the flow takes place through the foundation wall of a building, damage may result. Ground connections should, therefore, be distributed more or less symmetrically about the circumference of a structure rather than grouped on one side. With ground connections properly distributed, the current will be collected at the outer extremities and a flow underneath the building minimized. In every case, for the foregoing reason, at least two ground connections should be made at opposite extremities of the structure.

If a lightning-conductor system is placed on a building within or about which are metal objects of considerable size within a few feet of the conductor

. . . Lightning . . .

The Sky-Flash Hazard of Grain Elevators Discussed in the Light of Insurance Requirements and Scientific Data

ON THIS page a map, composed by the United States Weather Bureau, discloses the lightning frequency of various areas in the American grain belt. It represents the one great hazard in connection with electrical storms which is beyond control of the elevator owner. Nature ordains that any structure is a fair target for the swift, hard discharge of electricity from clouds. The hazard cannot be avoided. It can be minimized.

False security, however, is offered by certain methods advanced for protection against lightning. Old ideas on this subject must be discarded in view of authoritative facts currently developed. The electrical storm occurring in Illinois only a fortnight ago, should be taken as a cue by every elevator manager to check up on his lightning defense. Is it obsolete, or does it meet modern standards?

Constructive criticism of lightning-protection methods no longer acceptable, is given for publication here by C. W. Gustafson, chief engineer of the Mutual Fire Prevention Bureau. He says:

"In the February issue of the AMERICAN ELEVATOR AND GRAIN TRADE there appears an article by James F. Hobart, entitled 'Hints for the Elevator Millwright.' The first section is given over to a discussion in which a character carrying the name of 'Big Bill' attempts to convince 'Mr. Owner' that he should equip his elevator with lightning rods.

"We are in entire agreement with 'Big Bill' that lightning rods properly designed and installed will protect the elevator from damage through lightning discharges. In fact, we enthusiastically endorse and recommend that all buildings be protected. The good which Mr. Hobart accomplishes in the first part of the discussion is almost entirely destroyed in the second part, in which Big Bill recommends to Mr. Owner that he make use of a quantity of one-inch iron pipe to serve as conductors for the proposed lightning rod system. Such a 'lightning rod' installation would at its best be a poor makeshift and one which could not be depended upon. We hope that no elevator man will attempt to follow Big Bill's suggestions and use iron piping as a substitute for standard materials.

"Rigid conductors including piping are not now regarded as suitable for installation on elevators. This is due to the fact that there is considerable settling of the house when loaded with grain, this settling in many instances being as great as from 12 to 18 inches. Obviously, then, when an elevator settles on loading, the lightning rod installation must settle with it. This introduces strains in the down conductors, which, if rigid, will result in breakage at joints, or at least loosening of the fasteners.

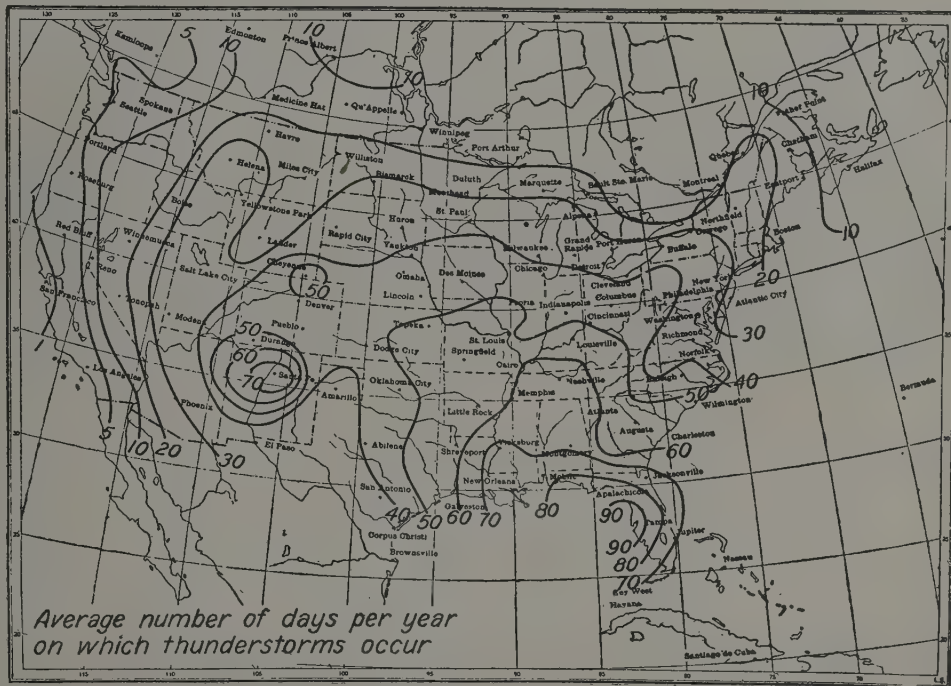
"Experience has proved that woven copper cable is the best type of conductor to employ in rodding elevators, and practically nothing but this type is used by recognized authorities on lightning protection. This type of cable is so made that there is sufficient 'give' to compensate for the rising and settling of the elevator between unloading and loading. This prevents undue strain on the cable and the possibility of loosening at points where it is fastened to the house.

"We recommend in every case that when it is proposed to install lightning rods the work be done by experienced persons using nothing but materials

inspected and approved by the underwriters' laboratories. This will practically insure approval of the installation by the insurance companies and make possible granting of a liberal credit in the fire insurance rate. No insurance company of which we are aware would be likely to give any credit for a lightning rod installation improvised of iron piping.

"The expense of rodding an average elevator is comparatively small. In most cases the cost is absorbed by the savings in insurance rate within two or three years.

"Now, Mr. Owner, if your elevator does not have protection against lightning, install the protection immediately, before the disastrous spring and sum-



mer electrical storms begin. But, get the work done correctly. Your insurance company or the inspector who calls on you will be more than glad to tell you how it should be done and will furnish you with the names and addresses of competent installers operating in your territory."

The standards bureau of the Federal Department of Commerce has formulated a code of lightning protection. One section of this code deals with building protection and contains the following formula for procedure.

The structure to be protected should first be thoroughly examined and all points or parts most likely to be struck by lightning noted, with the view of erecting air terminals thereon for the reception of the discharge. The object is to intercept the discharge immediately above the parts liable to be struck rather than to attempt to divert it in a direction it is not likely to take. The receiving points should be placed high enough above the structure to obviate danger of fire from the arc; the more inflammable the roof material the higher the points should be placed.

Conductors should be installed with the view of

there will be a strong tendency for sparks, or side-flashes, to jump from the conductor to the metal at its nearest point. To prevent damage an interconnecting conductor should be provided at all places where sideflashes are likely to occur.

Within buildings where metallic objects may be liable to a dangerous rise of potential due to a lightning flash, the metal, if not interconnected with the lightning-rod system, should under some circumstances be independently grounded.

Since a lightning-conductor as a general rule is expected to remain in working condition for long periods with little attention, the mechanical construction should be strong and the materials used such as to offer high resistance to corrosion.

The American Standards Association has approved all details of the bureau's code. Copper cable, according to the code standard, "shall weigh not less than 187.5 pounds per 1,000 feet."

WHEN the grain market opens in Chicago, it is 3 p. m. in London, England.

SACKING capacity of the New Orleans (La.) Public Grain Elevator is 7,200 bushels per hour.

BELTING AND GASOLINE ENGINE FLYWHEELS

By W. F. SCHAPHORST

Not long ago I was approached concerning the proper belt which should be used on a gasoline engine that fluctuated badly. I was told that belts on the engine lasted only one month and then broke. A new belt was put on nearly every month and the owner was getting tired of it. His conclusion was that all belts are no good and so he wanted to eliminate belting entirely.

The engine did not drive a flour mill or even a grain elevator, but the problem is so closely related to problems which grain men are continually bumping up against that I feel my experience is worth relating here.

In my report, I told the owner that the trouble lay entirely in the flywheel and not at all in the belt, as the engine flywheel wasn't heavy enough. A correctly designed and built gasoline engine will have a flywheel of such size that there will be no violent fluctuations. The governor should be sensitive enough to function properly with the flywheel and maintain a nearly constant speed.

When gasoline engines first came out they were very crude. I have seen some of the early types belted to electric light generators. With every explosion there was a corresponding brightening of the lights and they were not satisfactory for electric lighting purposes.

My brother told me of stopping overnight in the hotel of a small town in South Dakota several years ago where he noticed a periodic flickering of the electric lights. It wasn't a noisy town, so he presently heard the exhaust of what he learned was a producer gas engine and the flickering synchronized perfectly with the exhaust. He thought it strange that the town would put up with the nuisance, but they did. They probably believed that all electric lights flickered in the same way. Had the flywheel been heavy enough, however, and the governor delicate enough, there would have been no flicker.

Small gasoline-engine-driven farm electric lighting sets of today give a perfectly smooth light. Manufacturers have learned how to design such sets. They make the flywheel heavy enough and the governor sensitive enough to care for all conditions.

The gasoline engine first mentioned in this article drives a reciprocating pump. What could be worse than that? They had about the worst possible condition there—a fluctuating driver operating a fluctuating driven machine. The driver has a peak impulse with each explosion and the driven machine a peak load with each discharge. Every once in a while the two peaks coincide and unless the flywheels are heavy enough to take care of the energy the belt will get an excessive pull and will slip, run off, or even break.

When faults of design are remedied it is invariably proved that a high quality belt of sufficient width and proper thickness will not give any trouble. Nine times out of 10 the machine is at fault—not the belt. The belt must be elastic, strong, and slipless. It must have a high coefficient of friction.

CORN MORE THAN HALF OF STATE'S CROP VALUE

A review of 1929 field crop records in Illinois shows considerable variation, especially for the southern half of Illinois, but crop production for the state as a whole will measure up to average for all crops combined. The total acreage of all crops harvested this season differs little from that of a year ago.

Decreased acreages of corn, Spring wheat, oats and barley have been offset by increased acreages of Winter wheat, tame hay and soy beans. The combined total production of all crops does not total up as favorably as that of the 1928 season. However, the gross farm value of 16 principal crops produced in 1929 approaches that of 1928, and has

only been exceeded by that of the 1928 season during the past four years. The gross farm value of the 16 principal crops produced in this season is about \$425,000,000, a decrease of less than 3 per cent from the total gross value of \$437,000,000 for these crops in 1928. The gross farm value of corn production at \$224,280,000 continues to represent over half of the total gross value of all field crops produced in Illinois. Tame hay ranks second with a total value of \$62,760,000, oats third at \$56,695,000 and all wheat fourth with a total farm value of \$40,493,000 for the 1929 season, according to the Federal-state figures.

LADY IS FEDERAL FARM BOARD'S STATISTICIAN

Appointment of Anna M. Michener, formerly employed on the staff of a newspaper in New York City, as economic statistician for the Federal Farm Board, has been announced. Miss Michener is entering upon her farm relief work this month.

The farm board's new statistician studied at Swarthmore College, and took graduate work at Columbia University in New York City. Previous to March, 1929, she was employed as a bank statistician.

KANSAS CORN HAS SPECIAL VIRTUES, STATE CLAIMS

With an average of 5,493,000 acres in corn during the last 10 years, an average production of 102,885,000 bushels a year, having a volume of \$75,128,000, Kansas is ranked seventh to eighth among the states in corn production, though considered not wholly within the so-called corn belt of the United States.

"Corn in Kansas," a new report just issued by Secretary Mohler of the Kansas State Board of Agriculture, tells how this rank was attained by a state so relatively new as Kansas. The common practices throughout the state in corn growing, the up-to-date methods in soil preparation, planting and harvesting, the latest information about adapted varieties of seed, seed testing, insect and plant enemies and diseases of corn, its rotation with other crops, the peculiar value of Kansas grown corn for breakfast foods and for seeding on account of its long season of ripening, in fact, everything about Kansas corn is brought together in one volume for the first time in this report.

Notwithstanding the generally accepted dictum that certain portions of Kansas are not hospitable to corn, it is a fact that the acreage of corn has spread to these regions and has steadily expanded until, with adapted varieties upon certain kinds of soil, an impressive corn industry has developed in a region formerly classed as pasture land. A case in point is Grant County in southwest Kansas. For the decade ended with 1910 the average area in corn in Grant County was 1,013 acres; for the next decade it was 2,041 acres and for the nine years ended with 1929 the average had grown to 15,672 acres, with 24,436 acres planted in 1929.

TESTS REVEAL BETTER OATS

As the first step in a program to reduce the annual loss suffered by oat farmers on account of rusts, the United States Department of Agriculture, in co-operation with 65 experiment stations, has completed tests extending over a period of five years to determine varieties resistant to stem rust. Incidentally, observations also were made on the resistance of these varieties to crown rust and the smuts of oats. This naturally complicates the problem of prescribing certain varieties.

An important fact brought out by the tests is that there seems to be no relation between resistance to stem rust and resistance to crown rust. Some of the varieties most resistant to one rust were least resistant to the other. Observations on the smuts, another important group of oat diseases, indicate that there is also no relation between smut resistance and rust resistance in the varieties

tested. The varieties which were most resistant to stem rust during the five-year period are: Iogold, Hajira, Richland, Minota X White Tartar (White Russian), White Tartar, Green Mountain, Anthony, and Edkin. Varieties least affected by crown rust were Green Mountain, Red Rustproof, Iowar, Burt, Rustless Selection, and Ruakura.

Hajira was the only variety of oats which appeared to be resistant to the smuts and both of the rusts.

Varieties most resistant to the smuts under the conditions of these experiments were Markton, Red Rustproof, Fulghum, and Hajira. Those moderately resistant to the smuts include Burt, Richland, Silvermine, Rustless Selection, and Iowar. Varieties extremely susceptible were White Tartar, Green Mountain, and Anthony. Some of the varieties were highly resistant to one group of disease-producing fungi and very susceptible to the other. Markton and Fulghum were very resistant to both smuts, but extremely susceptible to both rusts. Red Rustproof also was highly resistant to both smuts and to crown rust, but was susceptible to stem rust. On the other hand, Green Mountain was susceptible to both smuts but resistant to both rusts.

The smuts can be prevented by seed treatment, but those in charge of the tests feel that it would be highly desirable to combine rust resistance and smut resistance in one variety, if possible. To do this will perhaps necessitate a detailed study of physiologic form specialization in the smuts and rusts peculiar to oats. A detailed report of the tests has been published by the United States Department of Agriculture, with the Minnesota Agricultural Experiment Station. The publication is Technical Bulletin No. 143-T, "Field Studies on the Rust Resistance of Oat Varieties." Copies of the bulletin may be obtained from the Office of Information, Department of Agriculture, Washington, D. C., as long as there is a supply available for free distribution.

BARLEY OF BIBLICAL TIMES FOUND IN BURIED CITY

Samples of grain found during the Field Museum-Oxford University expedition to Mesopotamia, in the ruins of the buried city of Kish, "the first city founded after the flood," have been declared by five experts of the United States Department of Agriculture to be barley.

Three jars of grain were found in two ancient buildings that had been buried for thousands of years below the original surface of the mounds covering eastern Kish. One building was in a stratum just above the level where traces of a flood were discovered, which, according to archaeological evidence, occurred about 3200 B. C. The grain is now practically pure charcoal.

OATS RANK HIGH IN WEST

With the development of western agriculture, interest in the oat crop is increasing and oats now rank second in importance among cereals grown in this region. Except in the drier sections, higher yields and better quality of oats are produced in the western half of the United States than in any other region, says a new publication of the Department of Agriculture. Sections in each of the three great areas in the western half of the country—the great plains, the Rocky Mountain and intermountain, and the Pacific areas—are adapted to the production of oats.

For profitable oat production the department recommends good seed of adapted varieties, properly cleaned and graded, and treated with formaldehyde to control smut. Another recommendation is sowing the seed as early as the land is in condition to work in the spring. Early seeding is extremely important in the great plains area, owing to the danger of a deficiency of moisture later in the season. In the Willamette Valley of the Pacific area oats are sown in October; in California, November is preferable.

March 15, 1930

Pneumatic Equipment Finds Favor in Russian Elevator

Suction Tunnels and Intake Bin Part of Leningrad Plant's Air-Operated Machinery

By JOHN H. D. BLANKE

THE Leningrad Warehouse Corporation is owner of the grain elevator and mill at Leningrad, shown in Fig. 1. It was designed for them by the architect, J. N. Kwill, of Leningrad, and built adjacent to the Obwodny Canal. The elevator is built for a storage capacity of 15,000 tons of all kinds of grain, but principally of rye.

All conveying is done by means of pneumatic equipment installed by the Mahag. Elevator bins are provided with slide discharges at both sides of the building. These openings, particularly those of the larger inner bins, are located considerably below floor level so that the space is utilized to a maximum for the storage of grain.

Suction tunnels are located along both sides for the removal of the grain. Besides, three rows of bins on the street side of the elevator have discharges located high enough so that the grain can flow into bagging scales which weigh and bag the grain.

There are two towers above the elevator, each containing a suction intake bin with discharge apparatus to the pneumatic conveying plant, furthermore, an automatic scale and a gravity duct system to the elevator bins. The grain arrives by railway car at the yard, is lifted pneumatically into

elevator, a suitable duct system is installed by means of which grain can be conveyed from any one of the bins to the mill. It was considered important that in the delivery from the elevator to the bin the grain from as many bins as possible could be mixed. For this reason, a mobile gravity duct equipment was installed, making it possible to deliver the grain from two groups of slide discharges, that is, 10 elevator bins, to the suction tunnel from which it is conveyed pneumatically in mixed condition to the mill.

In order to load grain stored in the elevators back into railway cars a special loading bin with elevated discharge opening is provided. That part

sen, chief of the Bureau, in his report to Secretary Hyde of the Department of Agriculture upon the work of the bureau in the fiscal year 1929.

Market news gathered by the bureau's 50 offices in principal markets; crop reports from hundreds of thousands of producers; shipment reports furnished by railroad agents; storage stocks reported by warehouses and cold storages; the grading and inspection of thousands of cars of fruits, vegetables, meats, dairy, and poultry products; reports from foreign countries on production; analysis of demand and price trends to form the basis for more intelligent planning by producers and market agencies to avoid losses and to enhance returns, all these services of the bureau have been effective factors in improving the economic condition of American agriculture, says the report. A staff of more than 2,000 workers scattered throughout the United States and in several foreign countries form the largest economic fact-gathering agency in the world working for the agricultural industry of any country.

Through the use of economic information, the business of farm production and distribution is gradually being reorganized and redirected. New

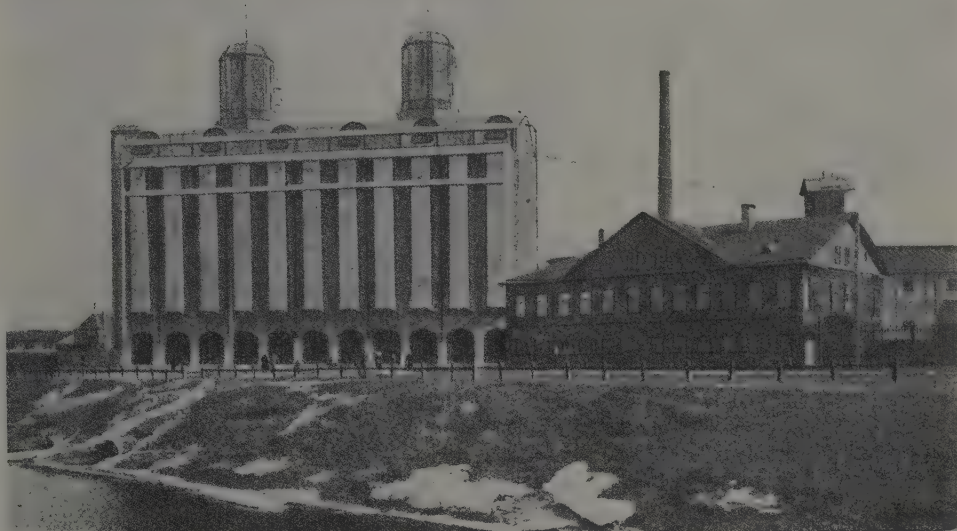


FIG. 1. VIEW OF THE GRAIN ELEVATOR AND MILL AT LENINGRAD, U. S. S. R., SEEN FROM THE OBWODNY CANAL

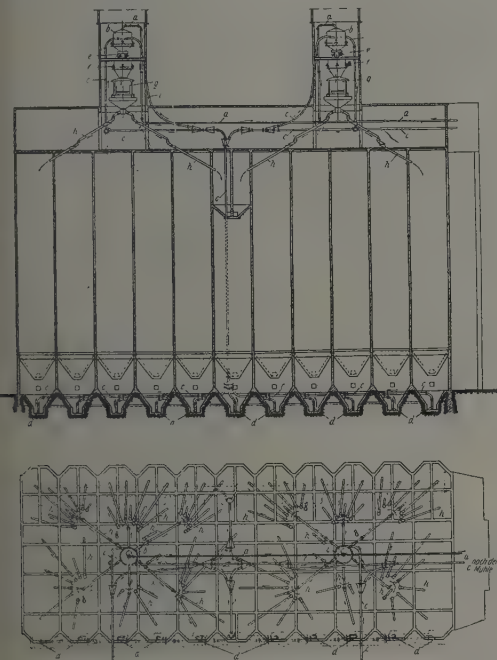


FIG. 2. SECTION AND PLAN OF THE GRAIN ELEVATOR
a. air lines; b. suction intake bin; c. conveying lines; d. exhaust nozzles; e. discharge; f. intermediate bin; g. scales; h. gravity spout; nach der Muehle—"to the mill".

the suction intake bins in the two towers, weighed and then distributed by way of the gravity duct system to the various elevator bins. Branch ducts of the pneumatic conveying plant are located in the above mentioned suction tunnels, by means of which grain can be conveyed from the slide discharge of each elevator bin to the suction intake bin in either one of the two towers and then delivered to any one of the elevator bins. Of the bin discharges on the street side which are located higher than the other discharges, five discharges each are gathered at one point so that the bagging scale can handle the grain from five bins individually or mixed. If the grain in the bins at the street side is to be restored, it is discharged through gravity ducts to one of the mentioned suction tunnels and withdrawn pneumatically.

Since a mill is operated in connection with the

of the elevator bins located beneath this discharge bin serves for ordinary discharge. A movable gravity duct leads from the loading bin to the receiving openings of the cars. The grain can be taken from any desirable part of the elevator by means of the pneumatic system, weighed and discharged to the special loading bin. The cards are loaded independent of the conveying system. Furthermore, it is possible to convey grain received in the cars direct to the mill.

The pneumatic equipment of the elevator permits conveyance of the grain from the railway car to any desirable elevator bin and to the mill, and also conveyance from any of the elevator bins to any other one of the elevator bins or to any desired elevator bin in the mill. The original plan provided also for a pneumatic installation for discharge from the ships moored on the canal across the street from the elevator; but this installation has not yet been made. The pneumatic equipment of this elevator has a handling capacity of 100 tons per hour.

The writer realizes that the diagram of this Russian grain elevator will be of special interest because of the detailed facilities provided for moving the grain between the various points within the elevator.

MARKET NEWS PRAISED

The better balance between production and market demand in agriculture has occurred coincidentally with the more extensive use of the facts and services provided by the expanding organization of the Bureau of Agricultural Economics, says Nils A. Ol-

methods and practices to meet changing economic conditions are being developed more rapidly than ever before. Nearly 300 economic research projects now under way in the bureau are giving aid in solving many of the complex problems in agricultural marketing.

The bureau's outlook reports now cover 38 of the most important crops and livestock, giving worldwide and domestic conditions of production and demand and probable trends of production and prices to aid producers in planning for profitable farming.

The bureau's market-news service this year was made practically nation-wide in scope, by extension of the leased-wire system to more than 10,000 miles and the opening of several new offices in the South and Northwest.

The Federal Farm Board has increased the need for economic facts on agriculture, and the bureau has broadened its activities upon request of the board and is planning further expansion of its world-wide crop and market reporting agencies. The extension of co-operative activities by the board is creating a further need for the services of the bureau in marketing.

GRAIN crop prospects in the Union of South Africa continue excellent except for some loss due to excessive rain and hail in the high veld, according to the January report cabled by American Trade Commissioner Day in Johannesburg. The wheat crop is estimated at 11,202,000 bushels, an increase of nearly 50 per cent over the last five-year average. Markets are glutted because mills have been free buyers of Australian wheat over a considerable period of time.



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Official Paper of the
Illinois Grain Dealers Association

CHICAGO, ILL., MARCH 15, 1930

FARM BOARD POLICIES IN SHARP FOCUS

LET a grain dealer advise farmers in his territory that current supply and demand for wheat indicate that they all would be better off with wheat acreage reduced 10 per cent. Let him also virtually guarantee a fair price for wheat whether acreage is reduced or not. What would you think of his business wisdom? How much cash would you loan him if you were a banker? How much stock would you take in his company?

We are all "stockholders" now in a similar proposition. The Federal Farm Board policy has been modified, but its essential policies, reduced to a local grain dealer's terms, are the same as outlined in the paragraph above. We predict dividends will be passed pending reorganization.

CONSTRUCTIVE EFFORT

WHILE one branch of the Government sets in with vigor to harass or destroy the grain dealing industry (and to set something in its place, of course, much more efficient) another branch is in the midst of building a new industry in the grain states.

To study the utilization of farm wastes and by-products, specialists from the Bureau of Chemistry and Soils, Federal Department of Agriculture, are on tour through the Middle West this month. Conferences of farmers, grain dealers, other business men, and the Government forces are scheduled for Minneapolis, Minn., Madison, Wis., Dubuque, Iowa, and Chillicothe, Ohio, to investigate activities,

present and prospective, in the utilization of corn stalks, wheat straw, oat hulls, and other rural-waste material.

Chemists of the Department of Agriculture proved 20 years ago that it was possible to make paper from cornstalks, but at that time the economics of production proved a barrier to successful large scale-operation. For many years the bureau has investigated, both in the laboratory and on a semi-commercial scale, the utilization of corn cobs, of straws, of cotton hulls, and of cornstalks for paper making and for several other uses. The chemists of the bureau are of the opinion that the manufacture of boards of various kinds from cornstalks and straws promises to be practicable and profitable. They now are co-ordinating their efforts with those of farmers and merchants. The wall-board factories and other processing plants which will be established will represent farm relief of a constructive type.

GENEVA-BRAND FARM RELIEF

SUGGESTIONS offered by the economic committee of the League of Nations, now adjourned from its meeting in Geneva, Switzerland, to the effect that farm relief might be achieved through the agency of the league, doubtless will sound fantastic to most grain dealers in the present generation.

The present situation in our domestic wheat markets, however, is proof of the fact that national farm-relief machinery operates at overwhelming odds against control of an international commodity. This admission leads logically to the belief that real agrarian relief, if it ever is effected, will be based on some kind of international agreements.

A world commodity, such as wheat, never will be subject to having its value fixed, or even stabilized, by any one government. Great Britain has proved this fact with rubber. Brazil has proved it with coffee. The United States is proving it, on front pages of its daily papers, with wheat itself.

THE ACID TEST

RECENT appointments of capable men to serve on the Federal Grain Stabilization Corporation are the only hopeful signs in the cloudy "farm-relief" outlook of this spring. George S. Milnor, of Alton, Ill., a grain man and miller of long experience has been chosen to take complete charge of buying and selling on the part of the stabilization unit, created as a Federal Farm Board Agency.

His activities in this unique piece of work will not be a test of personal ability. His ability is quite a known quantity. His activities will serve to demonstrate if the provisions of the Agricultural Marketing Act can be doctored up to a workable point by the expert services of a practical man.

Mr. Milnor is a director of the St. Louis Merchants Exchange, president of a large milling company, and an executive in various other commercial and trade-association projects. In other words, he is the type of practical man, whose intimate contact with the grain trade, fits him to out-fight farm relief problems—if those problems can be out-fought by a system with

legislative, rather than economic parentage.

When the Grain Stabilization Corporation was organized on February 11, W. G. Kellogg, who is vice-president and general manager of the Farmers National Grain Corporation and also president of the Grain Stabilization Corporation, consented to take over the management of the stabilization corporation's affairs, pending the completion of negotiations for a general manager which were begun at once. The appointment of Mr. Milnor affords opportunity now for Mr. Kellogg to give more of his time to the management of the Farmers National Grain Corporation—which has troubles enough of its own to require the services of a full-time manager.

GRAIN SERVICE STATIONS

WHEAT storage now is being discussed in the Pacific Northwest with all the vigor that preceded the Southwest's entry upon its campaign to increase elevator facilities. Oregon, Idaho, and Washington produce close to 100,000,000 bushels of wheat in a good season; almost two-thirds of this goes into export channels, compared to the fourth of our national production that has destination overseas.

It may readily be seen, then, how important an adequate tidewater storage program is to the Pacific Northwest. That present elevators are not a measure of current needs has been demonstrated this season. For weeks demurrage was the fate of from 1,000 to 2,000 of terminal-bound cars.

As a result of this situation, preposterous suggestions have been advanced by certain farm-leader theorists. One grange spokesman has declared that co-operatives there can erect storage plants at a cost of from 10 to 20 cents per bushel-space provided. Makeshift elevators probably could be thrown together for that amount, but they would be minus quality-construction and minus any cleaning or drying equipment. They would be foredoomed to failure as practical business ventures. As the West builds its new elevators, they should be not only storage plants, but modern service stations for grain.

In the "Grain World" department, and elsewhere in this publication, is regularly printed information received by cable from the principal grain markets of the world. This service, furnished by the Department of Commerce and enlarged at the time of Herbert Hoover's connection with the department, has been going on in such a dependable, routine manner that it has come to be taken very much for granted. It is worth noting how unique such a service is. The United States is the only nation that runs such an elaborate press service to help its industries, and it is an immeasurable aid in developing foreign commerce, not only in grain and grain products, but in other lines. Even to those not involved in export trade with its multiple set of ever-changing problems, news furnished by the Departments of Commerce and Agriculture are of interest. No private news-gathering agency, not even large press associations, could afford to keep up such far-flung contacts with world trade. It is a service worth using and one compelling respect.

EDITORIAL MENTION

Sweden plans to treat imported oats with crimson dye. This is a year of red menaces.

Legionnaires of the Chicago Board of Trade are among the active friends of the war-veteran orphan home at Normal, Ill. Their generous financial aid to children there is thoroughly appreciated—and needed.

Oklahoma oil is the Sooner State's chief claim to commercial importance. Among all other states it ranks only twelfth in corn production and eleventh in oats production, but it is still our third largest wheat state.

Evidence that soviet officials have initiated grain shipments only as a last resort to bring in cash, lies in the fact that platinum, valued at \$2,500,000, has been sent from the U. S. S. R. government vaults to New York banks.

It takes a London correspondent of the "world's greatest newspaper" to explain the milling and baking qualities of world wheats in a beautifully simple way. John Steele of the *Chicago Tribune* overseas staff cables his public that European wheat has "a heavy water content" and is "used generally for making crackers, while the dryer type of grain, such as America's, is preferred by bakers for bread, since it is capable of absorbing more water." Mr. Steele's dispatches on the London naval parley have been illuminating.

Grain Man Anderson, of Indianapolis, recalls way-back-when there was a run on the Indiana National Bank. That was when the local board of trade was over on Maryland Street and there were no airplanes with which to zoom money to bankers in a jam. But there were grain men around with high-powered ideas. Some of them, interested in the bank's affairs and knowing it was solvent if time could be gained, loaded several men with sample bags of grain and marched them to the bank, under a more or less military escort, and in full view of the line of people waiting for their money. The ruse worked; the run stopped; the bankers said that particular grain would have been cheap at \$5,000 per bushel.

"Grain Grading," a new two-reel educational movie, released by the United States Department of Agriculture, shows the need for grain inspection and the part that grading plays in the movement of grain in the United States and for shipment abroad. It is intended primarily for producers, dealers, and all other handlers of grain. It represents a fine opportunity for the grain trade's convention engineers. The new film takes the place of an old one-reel film, "Wheat Grading under Federal Supervision," which has been withdrawn from circulation after years of usefulness. The new film shows newer methods, more details, and the procedure followed today in inspecting wheat and rye, beginning with the superficial grading at farmers' elevators and continuing with scenes of testing

in the laboratory to determine the grade. The grain shown in the film is wheat, and there are some excellent closeups. Titles explain that the larger part of American grain entering commerce is bought and sold by grade; that upward of 85 per cent of the grain handled is sold on original inspection by licensed operators; that grain inspectors, whether working for the state, boards of trade, or independently, are licensed by the Federal Government. The film also shows how sample grain is displayed on the exchange and that the grain is sold on the basis of the grade assigned; that if one is dissatisfied with the assigned grade he may appeal to the district office of Federal Grain Supervision; and furthermore that all grain shipped abroad is inspected under Federal supervision. The film doubtless will be in great demand. Requests for "bookings" should be made early—there is no charge except for transportation.

CROSS-SECTION NOTES ON THIS ISSUE

No such elevator as the 500,000-bushel plant described on Page 547 has ever been erected on this side of the Atlantic.

Bible barley: Page 546; grain-grading movies: This page.

Owner of a croix de guerre: One of the personalities dealt with on Page 558 of the "News Letters" department.

A council of grain and exchange chiefs: Page 541. (Incidentally, "Revive the Council" was an editorial subject last issue.)

Modern ways of circumventing lightning loss to elevators: Page 545.

Head and shoulders above the ordinary old-type storage plant in design and operative efficiency: The Missouri establishment described on Pages 539-540.

Grain-scale advice by an expert: Page 540.

An "x-ray" of receipts in America's largest Winter wheat mart: Page 542.

Bean-elevator news: Page 565.

McKelvie vs. Boyle: Page 543.

Prospects for spring trade through seed-dealer channels: Page 568.

From reliable sources: Resumes of current feed experiments and feed news: Beginning on Page 563.

Especially prepared for the AMERICAN ELEVATOR AND GRAIN TRADE, an official review of grain-price trends since February 15: Page 561.

F. C. Riebe, vice-president of the Kellogg Commission Company, Minneapolis, Minn., in a letter commending certain editorial opinions registered here, says: "Business men outside of the grain trade who are members of the United States Chamber of Commerce evidently are adopting a policy of watchful waiting in regard to the Federal Farm Board. So long as their particular businesses are not interfered with, they seem to have no interest in what may become of the grain business." Mr. Riebe makes articulate the general idea which no doubt is in the minds of many grain dealers. The on-the-fence attitude of the national chamber is a disappointment to interested parties on both sides. The present emergency is important enough to

business generally to demand a definite stand on the part of the one organization supposed to be representative of American business.

The prediction is current that it will not be many years before Congress puts the United States into the list of nations in which the metric system of weights and measures is the sole legal system. Two resolutions now pending before Congress, introduced by Representative Fred A. Britten, of Illinois, would make the country metric by 1935. William E. Bullock, secretary of the American Institute of Weights and Measures, estimates that it will cost our industries \$30,000,000,000 spread over a period of 10 years, to substitute metric units for the customary units. This is equivalent to \$20,000 a year for each plant on the basis of 150,000 plants. This cost will be passed on to the public. Then there must be added the cost of enforcement of the new units and standards by the Government. It is estimated that the Bureau of Standards, into whose charge the work of enforcement is expected to fall, will be required to recruit and maintain a staff of 10,000 enforcement officers throughout the country. At an average compensation of \$1,500 per year per man, the wage bill for enforcement will thus total \$15,000,000 a year. When all this is done, and these expenditures put into effect, we shall be buying wheat by the kilogram, gasoline by the liter, piece goods by the meter, and so on, and it will be 621 kilometers from New York to Chicago.

It requires but little imagination to conceive of the engineering skill demanded of those who construct the trade's vast grain reservoirs. Foundations must carry not only the tonnage represented by tanks and machinery, but solid cores of grain which, in these days of inter-space bins, fill every possible cubic foot of space. Yet the support must not be wastefully strong. Elevator companies buy with both sides of their dollars. In almost every big storage construction job emergencies are met. They cannot be foreseen, and solving such problems often involves an interesting story. Elevator engineers who have met the worries sometimes attendant upon erecting riverside storage may be interested in the engineering crisis developed at the time foundations were being poured for one of the large Chicago railroad terminals near the Chicago River. Along the foundation line an ultra-soft spot was encountered. Quick-sand and water combined against the pumps, and the engineers could not drain that particular section of trench fast enough or long enough to permit the concrete to be run. Outside engineers were called in, but to no avail. Finally the problem was solved by a young trouble-shooter for a foundation service company in New York City. He tossed off the job like this: Pipes were laid in a square around the soft spot, and all hooked up to a compressor outlet. The pumps were manned. Then he lit a big cigar and sat on a box while a man released ammonia into the pipes. A solid rim of earth was frozen around the spot. He put on his coat, and turned to the local engineer. "Start your pumps," he said. "Take out your earth. Put in your concrete and yank out the pipes. I've got to catch the Century."

ROY HARPER
Pittsburgh

NEWS OF THE TERMINAL MARKETS

H. W. DE VORE
Toledo

ROCK ISLAND ELEVATOR MUST COME DOWN

Chicago Elevator Properties, Inc., sent out the following letter to the Chicago Board of Trade:

"We are advised by the C. R. I. & P. Railway Company that in view of the progress of river-straightening work it is necessary for them to proceed with the destruction of the Rock Island Elevator not later than May 1, 1930. Accordingly, will you be good enough to notify holders of receipts covering grain in that elevator to remove same not later than the last day of April."

PORTLAND EXCHANGE RE-ELECTS ALL OFFICERS

One of the few exchanges to re-elect all its officers was the Portland Grain Exchange where A. M. Chrystal continues as president, Phil Benedict as vice-president, W. A. Kearns as treasurer, and Sherman Draper as secretary. E. S. Johnston was again named manager.

The directors re-elected are: A. M. Chrystal, Phil Benedict, W. A. Kearns, Sherman Draper, S. E. Mikkelsen, Harold Sanford, and Mark P. Miller, new directors are Floyd Roberts and Fay Malone.

Finances of the exchange are reported to be in excellent shape.

CAR REPORT FROM SUPERIOR

The report of the Wisconsin Grain & Warehouse Commission on the condition of cars received at Superior during the year 1929, discloses some interesting figures. Of the 51,284 grain cars received at that terminal, claims were filed on 2,619 cars, of which 2,492 were reported in good condition, 86 were leaking, and 41 were patched.

Of the cars from country elevators, 2,304 contained cards, 1,663 of these cars were short and 610 were over, leaving only 31 whose outturn was the same as the shipper's measure. Apparently much of the disparity was due to the shippers miscount of the drafts in loading, as 48 cars were one draft short and 31 were one draft over. Two drafts short or over were 21 and 9 respectively.

The greatest number of leaks noted were at the grain doors, 1,954. Side, end, bottom and corner leaks combined were only 1,920.

Commenting on the movement of grain from the Southwest, the following note is of interest: "We understand this grain all loaded from combines. Was received in August. Twenty per cent of all cars either leaking or patched. Investigation shows outturns at other terminals run about the same."

MIXED CONDITIONS AT PEORIA

The situation in grain at Peoria for the past 30 days has been sometimes good, sometimes fair and sometimes very poor. Values here maintained pretty well as compared with other markets the most of the time. For several days past the arrivals of corn here have been very large—about 500 cars in the last four days. This put us in a position of being somewhat congested and the prices on the better qualities were hardly in line with other markets. The sample grade corn—most of it very poor—suffered a decline of 5 to 10 cents per bushel and more in some cases. We are just now pulling out of the congestion as arrivals are not so large and we are looking for a considerable lightening of country movement—owing partly to the uncertain wheat situation—partly on account of the materially reduced values, and partly on account of

farmers going into the fields to work. Right now we seem to be well in line with other markets on all sorts of corn—good and bad. The demand for local industries amounts now to around 75,000 bushels daily. It does not take long for the situation to right itself. We see no lessening of demand here and we are hoping that we will have better conditions.

Oats have been moving into market very light indeed and quite a fair proportion of the oats that have been in store here have been sold and shipped. Values here correspond very closely with other markets.

There is no wheat of any consequence coming here.—P. B. & C. C. Miles, Peoria, Ill., letter of March 10.

YACHTING FAVORITE PASTIME OF BUFFALO GRAIN DEALER

About 31 years ago, James G. McKillen of Buffalo, N. Y., entered the feed and grain business at a time when the industry was actually in its infancy in his home city. While he does not have time for club or fraternal life and duties, still he is not



JAMES G. MCKILLEN

without a hobby, and likes yachting. At present he is commodore of the Buffalo Canoe Club, the oldest and most popular yachting clubs on the Great Lakes.

For many years, Mr. McKillen was associated with the firm of Dudley M. Irwin, a Buffalo pioneer in the trade, who carried his business to all sections of the country. All this time, however, Mr. McKillen nursed a desire to be in the business for himself. He succeeded in his efforts about 10 years ago, and today has his own offices in the chamber of commerce building.

He says, "As far back as I remember, I regarded Buffalo the coming feed and grain milling center of the United States. Even in the early days, almost anyone could have realized the splendid possibilities existing, because of natural advantages."

Mr. McKillen further contends that most of the feed and grain trade changes have been for the better, and that Buffalo in years to come will witness even more spectacular developments in this particular industry.

"The character of the feed and grain business has

changed entirely within the past 10 years," Mr. McKillen explains, "the trend being more along lines of concentration and effort, rather than mere hopeful optimism."

Mr. McKillen is a native of Buffalo. His personality wholesomely reflects that type of business man who is bound to be successful and largely because of his willingness to help others. He is patient and quiet of bearing, and is very careful about the "little things," judging the latter as important to the life and contentment of any man.

Mr. McKillen is a past president of the Buffalo Corn Exchange. His term expired in 1928.

SEATTLE GRAIN EXCHANGE EXPANDS

By W. H. FOSTER*
President Seattle Grain Exchange

In plain dollars and cents, there is over \$125,000,000 in value of wheat alone, not to mention other grains, tributary to Seattle and the Puget Sound country in the Pacific Northwest. This condition is based upon the existing market price of approximately \$1.25 per bushel of 60 pounds delivered in railroad cars on track Seattle. More specifically, it represents over 100,000,000 bushels of wheat produced annually in Washington, Oregon and that portion of Montana and Idaho available to this port.

The Seattle Grain Exchange is a non-profit organization, organized under the laws of the State of Washington, and operating under special permit from the United States Secretary of Agriculture, under whose constant supervision the exchange functions. Membership is comprised of most of the leading commercial grain houses in this locality, including several of the larger banks. Self-governed and subject to strict regulations as to making of contracts of purchase and sale and their completion, financial stability, and goodwill, the exchange has established itself as an essential agency by means of which the producer and ultimate consumer transact business.

Trading was inaugurated on the Seattle Grain Exchange on May 1, 1926. The daily average of transactions the first two months of operation was 22,940 bushels. One of the best evidences of growth is indicated by the six months of trading ending with December 31, just concluded, recording a daily average in volume of 121,500 bushels, or approximately \$165,000, in value of business for each day of the week. The grain exchange has rapidly outgrown its quarters and at this time is making detailed preparations for moving into an elaborate trading hall situated in especially constructed quarters in the new exchange building, now nearing completion. The new exchange room will be one of the finest of its kind on the Pacific Coast, with every convenience arranged for the trader and public as well.

The specific job of the Seattle Grain Exchange is that of providing a safeguard to the farmer, dealer, miller and exporter, in the form of insurance against unforeseen price changes in the value of the grain from the producer to the consumer. On the trading floor, representative buyers and sellers gather daily, bidding for the grain that is offered, the article going to the highest bidder and thereby establishing a dependable market. Guesswork as to values is eliminated. Cabled offerings to the Orient, United Kingdom, and other channels of the world, therefore, are calculated on a known price, and in turn the grower of the wheat in the farming locality is constantly in touch with the trading center,

*From the Seattle Journal of Commerce.

March 15, 1930

and is always aware of what his product will bring him. Telegraph, telephone and radio communication are available for the broadcasting of the market at all times. The rapid growth of the exchange is a tribute to the economy of its operation and a realization of the economical necessity for it.

HEAVY OATS WANTED AT TOLEDO

Wheat receipts are much smaller, but are practically all Soft Winter. There has been some increased selling by country holders despite prevailing low prices. Premiums continue to rule firm with bids for No. 2 Red ruling at May price to 1/2 cent over, basis 28 1/2 cents rate. Corn made new lows when March 1 farm reserves report was not considered as bullish as expected. Lack of storage in most markets is also a depressing factor. Quality of local receipts has improved with some nearby corn grading No. 4 Yellow. March winds should soon bring the moisture down to No. 3 limit. Mills here require low moisture corn about 16 per cent, but can use an occasional car higher. Oats have been steady throughout the week, with a good demand especially for heavy barley type oats, which are bringing very good premiums over ordinary. As an emergency rule, deliveries in Chicago are being made in cars on track. This forces buyer to secure unloading space, which is scarce. The same may apply on May contracts, also.—*Southworth & Co., Toledo, Ohio, from market letter of March 8.*

MOVEMENT SLOW AT BUFFALO

The situation in cash grain in this market and the consuming territory east of Buffalo is in much the same condition as it is in other sections of the country. The dairy business is suffering from depression and while stocks of grain and other feed-stuffs in consumers hands are not large, the recent drastic declines with the front page advertising which has been given them has resulted in making the trade timid, and buying is strictly on a hand-to-mouth basis.

Stocks of corn and oats in this market are not large for this season of the year but in view of the slow demand it looks as though they would be ample to satisfy all requirements for the next few weeks unless there is a decided change in the feeding situation.—*J. G. McKillen, Inc., Buffalo, N. Y., letter of mid-March.*

LEANDER LE ROY WINTERS DIES

In the recent passing of L. L. Winters, who died from a heart stroke in Florida where he was seeking to regain health, the grain trade of the nation lost one of its most brilliant and scholarly members. For many years Mr. Winters, who was a partner in the long established La Salle Street house of Hulburd, Warren & Chandler, had been an active leader of the Chicago Board of Trade and had served in many official capacities.

Fearless, outspoken, and honest to the utmost degree, he commanded the respect and admiration not only of the American grain trade but of business and financial interests in La Salle Street and Wall Street alike.

As a grain economist he had attracted national attention for more than a decade and some of his daily market letters, which frequently departed from market trends to dwell on political and economic subjects, were regarded by authorities as masterpieces both from the standpoint of composition and by reason of the sound philosophy they embodied.

He was an eternal enemy of chicanery in business or politics and frequently expressed his extreme distaste of that ordinary, self-seeking gentleman known as the professional politician. He foresaw the complete passing of statesmanship.

His attitude toward political insincerity is best typified by an incident that occurred in the national capitol in Washington one hot summer day a few years ago. Mr. Winters had been called to Washington to give expert testimony in connection with proposed legislation governing commodity markets. In the corridor he came face to face with a certain senator who for years has made it his policy to get farmer votes by abusing grain, cotton, and stock

markets. Mr. Winters politely invited the senator to step aside with him for a moment.

"Now, senator," he said in a calm voice, "you have been characterizing members of commodity markets as gamblers and scoundrels. I happen to be an exchange member and I want to have it out with you right now. Do you regard me as a bad member of society? Come, now, don't beat around the bush."

The face of the noisy senator grew crimson. He began stammering an apology.

"Why, my dear Mr. Winters," he said. "Everyone knows you are of fine character and high business integrity. Certainly no shadow could ever fall upon a man of your sterling principles."

"Oh, pshaw! I'm no different from the rank and file of exchange members. Now do you mean to call those fine fellows gamblers?"

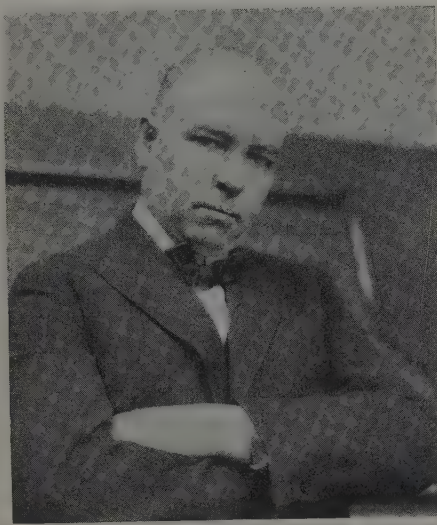
"Dear me, no!"

"Well, who do you mean then?"

"Oh, why, I— er, I mean the little outsiders who speculate."

"I guess, senator, you are just a politician and don't know what you mean," said Mr. Winters who departed chuckling, while the senator, his brow beaded with sweat, walked off, and remained silent for weeks, while Washington joined in the laugh.

Mr. Winters was the first chairman of the business conduct committee of the Chicago Board of Trade, serving in that capacity for several years, and receiving high commendation of the trade and of national magazines, including the *Saturday Eve-*



THE LATE LEANDER LE ROY WINTERS

ning Post. He is credited with doing much toward improvement of marketing machinery.

Writer, marketing economist, and speaker, his chief interest lay in the study of government, past and present. He was the author of several booklets which dealt with government. He was a tireless reader and usually was interested in two books at the same time, alternating his reading and thus avoiding "becoming saturated" with the opinions of a single man.

He was 57 years old, had been a member of the Chicago Board of Trade for 31 years, and had been identified with Hulburd, Warren & Chandler since 1904. In 1898 he was married to Theo Frances Perry of Chicago. Besides his widow, four children survive.

WOLFE APPOINTED GRAIN HEAD FOR U. S. IN NORTHWEST

Louis E. Wolfe, newly appointed head of the United States grain futures administration in the Pacific Northwest, made his initial visit to the Portland grain futures market recently. In addition to the offices located in the Northwest, the grain futures administration also maintains offices in Chicago, Minneapolis, and Kansas City.

The purpose of these offices is primarily regulatory in that their function is to prevent manipulation of the prices of grain and prevent the dissemination of any and all false and misleading information that might work harm to the buyer or seller

of grain. The establishment of such offices in the Pacific Northwest is considered by the grain trade as indicating a certain amount of prominence for that section of the country in trade and also lends assurance to producers, grain dealers, and millers that they will meet with fair dealings in news reports.

Dealers generally expressed the opinion that the grain futures market both in Portland and Seattle have maintained the market price of wheat fully 10 cents a bushel higher than would have been received by farmers if there were no common meeting place for unrestricted trade.

GOOD SOFT WHEAT IN DENMARK

We have had a good demand for Soft Red Winter wheat of good milling quality. Receipts have been rather light. No. 2 Soft Red Winter wheat sold here yesterday at 7 1/2 cents over the May delivered Ohio River Rate Points.

Our market has been badly congested and with continued heavy corn receipts spot market values have been forced down even more sharply than the break in the option. This is particularly true of off grade grain and the real poor corn has been selling at unusually wide discounts. There is a fairly good demand for the better grades of both White and Yellow corn, and this type of corn is bringing considerably better than commission difference over bids for shipment.

Oats receipts have not been burdensome. Fairly good demand particularly for heavy weight No. 2 White oats which could be used for seed.—*The Cleveland Grain Company, Indianapolis, Ind., Ed. K. Shepperd, manager, letter of March 11.*

ELEVATOR FAILURE MAY COST NATIONAL GRAIN CO-OP \$120,000

Unless the National Grain Corporation can secure a favorable court decision it stands to lose \$120,000 worth of wheat stored in the elevator of the bankrupt Continental Grain Company at Minneapolis, W. G. Kellogg, general manager of the corporation, has indicated.

Records of the railroad and warehouse commission indicate ownership of the wheat is vested in the Continental company, which early this month filed a voluntary petition in bankruptcy in Federal court at Minneapolis. Warehouse receipts for the grain, it was said, have been placed as collateral for a loan from a Minneapolis bank.

Chairman Alexander Legge of the Federal Farm Board, however, was quoted in dispatches from Washington as saying the corporation would sustain no loss as a result of the tangle in the affairs of the local grain company. Approximately 100,000 bushels of wheat were stored in the company's warehouse.

G. G. Grant, in charge of the grain department of the railroad and warehouse commission, declared receipts issued in the name of a warehouse company that does not own the grain covered by the receipt are fictitious and any loans obtained on such receipts are without security.

WHEAT FIGURES

Nat C. Murray, statistician for Clement, Curtis & Co., Chicago, in his report of March 4, gives the condition of growing Winter wheat as 82.9 on March 1, as against 80.4 last year and 78.0 the year before. In his summary on "Wheat Reserves", he says:

"Stocks of wheat on farms March 1 in the United States were about 112,000,000 bushels, compared with 151,000,000 a year ago and 144,000,000 the average of the past 10 years. A feature of the wheat supply situation in the United States is that an abnormally large proportion is in the visible supply, and a relatively small proportion is in the invisible. For whereas the visible stocks are 28 per cent larger than a year ago, and 166 per cent larger than the average of the past 10 years, the stocks on farms are 26 per cent smaller than a year ago, and 22 per cent smaller than the average of the past 10 years.

"Stocks in country mills and elevators are slightly above average, being about 91,000,000

bushels compared with 78,000,000 a year ago and 87,000,000, the average for the past 10 years.

"Of the total stocks in the three positions (visible, country mill and elevator and farm), the visible now represents about 43 per cent of the total, compared with 35 per cent a year ago and 20 per cent, the average for the past 10 years.

"Farm stocks east of the Mississippi River are much larger than the short supply of last year, but smaller than the average of the preceding five years. On the other hand, west of the Mississippi River stocks are smaller than last year but larger (except in the far Northwest) than the average.

"The large stocks in country mills and elevators are due largely to heavy holdings in the Pacific Northwest."

VOLUME OF GRAIN FUTURES TRADING FOR FEBRUARY

Futures trading on the Chicago Board of Trade for February totaled 1,600,526,000 bushels, only slightly in excess of the 1,413,159,000 bushel mark in January. The total was divided among the various grains in the following manner, for purpose of comparison January figures being shown in parenthesis: Wheat, 1,277,637,000 bushels (1,151,591,000); corn, 224,854,000 bushels (175,802,000); oats, 43,717,000 bushels (34,662,000); rye, 54,318,000 bushels (51,104,000).

Average open contracts on the Chicago exchange for February, "short" side of contract only being shown, there being an equal amount on the "long" side, were: Wheat, 194,872,000 bushels compared with 127,350,000 in February, 1929, and 196,559,000 in January, 1930; corn, 43,459,000 bushels against 79,574,000 in February, 1929, and 34,348,000 in January, 1930; oats, 35,329,000 bushels in contrast to 26,288,000 in February, 1929, and 38,795,000 in January, 1930; rye, 18,998,000 bushels compared to 9,343,000 in February, 1929, and 18,894,000 in January, 1930. The average open contract for all grains at Chicago in February was 292,658,000 bushels against 242,555,000 in February, 1929, and 288,596,000 in January, 1930.

PEORIA RECEIPTS LIGHT

Receipts of wheat from this territory are almost nil, most of the wheat having been moved at threshing time. The growing crop seems to be coming along nicely, as up to the present writing practically no damage reports of any kind have been put out. Stocks of last crop wheat, which are very large, do not seem to be in demand to any great extent either for domestic or export and with the new crop just a few months away, it may be that the producer will have to stack some of the new crop, instead of running it direct to the thrasher, unless wheat moves out of store in large quantities, storage space may be very hard to obtain when new wheat is about ready to move.

After a large movement of all kinds of corn, good, bad and indifferent, the receipts have dropped off rather suddenly, due no doubt to the large discounts on the high moisture, high damaged content corn. It now looks as though the market would have to advance quite a bit before another movement of consequence will start. Cash prices in this market have held well in line with other markets on good corn and the poorer corn has sold to better advantage here than in any other market. Considering the large receipts of the poor corn our market has taken it like an old veteran.

Receipts of oats are light, with the demand just about equal to the supply. Cash prices are in line with others. We look for a fair demand to continue.—*Mueller Grain Company, Peoria, Ill., letter of March 12.*

DOCK CHARGES REDUCED

In line with its intention to reduce the cost of port business at New Orleans wherever possible, the Board of Commissioners of the Port of New Orleans have announced, effective this month, a modification of charges applying against passenger and freight steamships which handle limited amounts of cargo.

Under the schedule for this class of vessels,

handling 500 tons or less, they will be allowed two days for accumulation of cargo, and will be charged the present passenger rate for dockage-wharfage, one cent per gross ton per day for a period not exceeding two days at the wharf. The regular charges applied against vessels loading cargo will not apply in their case, but they will be charged shed-hire at the rate of two and one-half cents per hundred pounds of cargo handled.

CHANGES IN MEMBERSHIP

Baltimore:—Irving Blaustein, of General Flour Company, succeeded Lewis Blaustein (deceased).

Boston:—H. P. Schell, of John W. Eshelman & Son, John D. Talbot, and Quentin Reynolds were admitted to the Boston Grain & Flour Exchange.

Chicago:—The following have been admitted to the Chicago Board of Trade: Frank J. Sullivan, of the Sullivan Packing Company; Rudolph J. Kudlata, broker; Edward P. Carroll, of the Norriss Grain Company; Emanuel F. Rosenbaum, Jr., of the Rosenbaum Grain Corporation; John M. Hancock, of Lehman Bros.; James G. S. Orchard, of the Bank of Montreal; Joseph R. Patton, Jr., of Sadler, Patton & Co.; John Y. Meloy, Jr.; Edward F. Rodgers; Fred I. Tourtelot; and William F. Roberts. The following memberships were transferred: Leonard M. Spitzglass, Edward S. Sheridan, Hugu J. Lion, C. H. McCarty, Woodward Babcock, C. Jerome Cable, Herbert H. Lehman, estate of William Turner, Lawrence K. Callahan, Clarence H. Girton, and estate of John J. O'Brien.

Duluth:—W. G. Kellogg, of the National Grain Corporation, and Sidney Wick have been admitted to the Duluth Board of Trade.

New York:—The following have been admitted to the New York Produce Exchange: Richard F. Uhlmann, of the Uhlmann Grain Company; Arthur Levy, of I. D. Noll & Co.; Frank J. Patrick, of Peter R. Lawson & Co.; and Raymond F. Kilthau. Henry Zinner was made an associate member.

St. Louis:—The following changes have been noted on the St. Louis Merchants Exchange: Oakley H. Gibbs, of the Lucke Gibbs Grain Company, was admitted on a transfer from C. B. Cox, and W. M. Irwin, of the Union Starch & Refining Company, was admitted on a transfer from H. E. Hughes.

TERMINAL NOTES

The offices of the grain and feed departments of the Jesse C. Stewart Company of Pittsburgh, Pa., have been moved to 1227 West Carson Street.

J. Bogy Taylor, who succeeded his father in an old-established grain business, has joined the firm of Mark C. Steinberg & Co., grain, stock, and bond brokers.

J. Ross Myers has been elected chairman of the standing flour committee of the Baltimore Chamber of Commerce for the ensuing year, it has been announced.

Memberships on the Chicago Board of Trade continue to sell at low figures, a sale during early March being made at \$18,000. At one time last year, memberships were valued at \$60,000.

The new building fund for the Chicago Board of Trade had reached \$1,391,837.79 the middle of last month. The membership retirement fund was announced at \$279,404.23 at the same time.

W. E. Harris & Son, grain brokers and representatives in the Baltimore market of James E. Bennett & Co., Chicago, have taken offices on the fifth floor of the chamber of commerce building.

Among the important Delaware charters filed recently was that of the grain stabilization corporation to act as an agency for its members in the purchase of wheat, rye, corn, and other grains.

The Chicago Great Western Elevator, operated by the Great Western Elevator Company, of which George A. Aylsworthy is president, has been made a regular member of the Kansas City Board of Trade.

Frank J. Ludwig, of the C. M. Cox Company, has been appointed chairman of the transportation committee of the Boston Grain & Flour Exchange, at a recent meeting of its board of directors. Those

who will serve with him are Robert C. Bacon and E. H. Day. The directors have appointed as members of the grain committee Henry E. Taylor, chairman; M. D. Benzaquin, and Alex S. MacDonald.

Modern drug stores, reputed to carry everything except drugs, reached the height of something or other when a Florida drug store installed a feed department to supplement its various other sidelines.

The William Kelly Milling Company has declared part of its storage tanks a public warehouse in order to meet the demand of the farm board for space in which to store extensive purchases made at Pittsburgh.

Early & Daniel Company, Cincinnati, received 5,375 replies in their contest announced over the radio. Prizes of pedigreed baby chicks were given to children forming the most words from "Tuxedo Poultry Feed."

Feed business in Fort Worth is "in a rut" as the normal spring demand has not as yet gained much headway. The erratic action of the grain market has left the trade in a confused state of mind, making business difficult.

Chicago stocks of grain in public and private elevators at the close of the week ending March 7 were as follows: Wheat, 21,022,000 bushels; corn, 4,807,000 bushels; oats, 3,013,000 bushels; rye, 5,460,000 bushels; barley, 394,000 bushels.

It has been announced from Ottawa, Ont., that three scholarships of an annual value of \$1,200 each, tenable in either the universities of Alberta, Saskatchewan, or Manitoba, have been established by the Canadian Wheat Pool.

Louis G. Graff, president of the Philadelphia Commercial Exchange, has appointed the following feed committee to serve during the year: Samuel A. King, Daniel J. Sullivan, George A. Wenz, Walter O. Fehling, and Monroe A. Smith.

With prospects of an increase in business during 1930, new officers of the Dallas exchange, which include A. A. Hart, president, Edwin B. Doggett, vice-president, and G. H. Rogers, secretary-treasurer, are looking forward to a successful term.

E. R. Alton, general manager of the Globe Grain & Milling Company's Ogden plant, who for the past year served as president of the Ogden Chamber of Commerce, refused to accept another term at a recent meeting of the board of directors.

Directors of the Boston Grain & Flour Exchange have appointed several committees for the ensuing year. The grain committee is: Henry E. Taylor, to serve three years; M. D. Benzaquin, for two years; and Alex S. MacDonald, for one year.

New officers for the Topeka Board of Trade are: President, V. P. Campbell; vice-president, F. W. Davidson; secretary-treasurer, C. L. Parker. The directors chosen include J. K. Landes, F. A. Derby, L. C. Grubb, C. L. Parker, and E. W. Morrison.

The rule of the St. Louis Merchants Exchange referring to the services of taking delivery, reshipping and handling papers, for which the fee was 50 cents a ton in addition to the regular commission, has been changed so that the fee now is 25 cents a ton.

Although reports indicate that many terminals have their elevators jammed with grain, Milwaukee is said to be an exception to the rule. In Milwaukee the stocks are now about 5,572, bushels in storage elevators, with 539,000 afloat in steamer storage.

Nine members of the Chicago Board of Trade were suspended recently for various periods of time, ranging from 90 days to a year. They are S. Percy Buchanan, G. B. Cathcart, H. M. Rollins, Hamilton K. Wilbur, E. A. Beauvais, L. J. Beauvais, A. V. Beauvais, Malcom Stobie, and Harry M. Warner.

With the report, March 10, that about 50 independent elevators in Kansas, Nebraska, and Colorado recently have become members of the Equity Union Grain Company in Kansas City, it becomes apparent that country interests are lining up behind the Federal Farm Board in an effort to obtain the benefits of the Agricultural Marketing Act. The Equity is a terminal marketing member of the

Farmers National Grain Corporation, with J. J. Knight as general manager. He estimates that each of the 50 elevators would average shipments of 125 annually.

W. G. Kellogg, general manager of the Farmers National Grain Corporation, has acquired memberships in Chicago, Kansas City, Omaha, and Minneapolis grain exchanges.

The grain exchange held its annual election during the latter part of February, the new officers being: President, Guy Cameron; vice-president, Haney Cochran; secretary-treasurer, August Probst.

Officers of the Birmingham grain exchange are as follows: President, Lee Allen Brook; first vice-president, John W. Wood; second vice-president, Cecil Cowan; treasurer, F. B. Yielding; and secretary, O. L. Bunn.

There were two major changes in registration on the Chicago Board of Trade during the first two months of the year. Claude L. Thomson, Math G. Scholzen, and Melville E. Latimer, formerly registered for their own accounts, signed for C. L. Thomson & Co., and H. Treynor Ray, formerly with H. T. Ray & Co., registered for his own account.

J. F. Jarrell, agricultural development manager of the Santa Fe railway, in a special report on Kansas wheat conditions of March 1, says that present indications are for much less than the normal winter killing on the 12,700,000 acres of wheat sown last autumn. Mr. Jarrell says that the state seldom, if ever, faced the making of a better wheat crop.

Losses sustained in the recent failure of the Electric Elevator & Grain Company, Winnipeg, Man., will approximate \$2,000,000, according to an estimate issued by the council of the Winnipeg Grain Exchange. Contrary to rumors circulated in the trade, none of the creditors are sufficiently involved to cause financial embarrassment, the council of the exchange said.

President Bunnell of the Chicago Board of Trade has appointed the following as members of the Special Advisory Committee for the development of the securities market: Chairman, Joseph P. Griffin; vice-chairman, Matthew J. Hickey; Maurice H. Bent, Fred S. Lewis, Arthur F. Lindley, Harry H. Lobdell, James P. Molloy, Allen S. Noyes, Philip R. O'Brien, and Henry A. Rumsey.

Directors of the Chicago Board of Trade amended Regulation 1041 so that it now reads as follows: "The dissemination of continuous market quotations of the association over all telephone wires is strictly prohibited, except by permission of the market report committee, and such permission, if granted, shall be subject to change. This does not prohibit ordinary conversation where dissemination of quotations is not contemplated."

Directors of the Omaha Grain Exchange, March 4, voted to proceed with the organization of a stock exchange. The special stock exchange committee, which is composed of L. L. Quinly, chairman, W. T. Burns, C. D. Sturtevant, and J. L. Welsh, was empowered to carry out its plans, which had been submitted and accepted by the directors without delay. It is hoped that the new exchange will be open within a few months.

The Portland Grain Exchange, in response to a statement by Alexander Legge, chairman of the farm board, asking for the assistance of the grain trade in maintaining wheat prices, sent the following telegram to Mr. Legge, signed by A. M. Chrystall, president: "Referring to your reported appeal for co-operation of the grain trade in an endeavor to restore wheat prices. We will be glad to do everything to assist. What do you suggest?"

Harry M. Stratton, active head of the Donahue-Stratton Company, international grain elevator concern with headquarters in Milwaukee, has been re-named vice-president of the Pere Marquette Line which plies between Milwaukee and Michigan ports of Manistee and Ludington. The Pere Marquette steamers carry a great deal of wheat to Michigan mills, together with other grains for feed plants, and connect with the Pere Marquette rail head on the east shore.

Government farm reserve figures on grain were

somewhat larger than anticipated by the trade, wheat showing 17,000,000 bushels in excess of the private returns; corn, 16,000,000 bushels, and oats, 14,000,000 bushels. There is 372,000,000 bushels of wheat available for the rest of the season against 355,000,000 bushels in 1929 and a 10 year average of 290,000,000.

C. M. WEAKS JOINS S. T. EDWARDS

Effective March 1, 1930, Carlisle M. Weaks, formerly with C. E. Rogers Company, assumed new duties as manager of advertising and milk engineering departments of S. T. Edwards & Co., Inc., largest distributors of dried buttermilk and dried skimmed milk.

Mr. Weaks' long standing association with the dried milk industries makes him valuable to the numerous creameries and milk plants depending upon S. T. Edwards & Co., Inc., to market its output of dried buttermilk and dried skimmed milk.

It should be particularly gratifying to the creameries and milk plants having contacts with S. T. Edwards & Co., Inc., to market their total output of dried buttermilk and dried skimmed milk to learn that they will have Mr. Weaks to look after their interests as he knows all angles of the milk drying game—installation and proper care of condensing and milk drying equipment—efficient oper-



CARLISLE M. WEAKS

ation—proper methods of handling raw product—production costs—marketing, etc.

The users of dried buttermilk and dried skimmed milk can be assured that Mr. Weaks, will co-operate in maintaining their high standard of quality by guaranteeing "Yankee" Brand Dried Buttermilk and "Butterfly" Brand Dried Skimmed Milk to be uniform in quality—color—texture—moisture, etc.

Mr. Weaks' associating himself with the Edwards organization does not come altogether as a surprise, as he has been more or less indirectly connected with Mr. Edwards for the past 15 years—from the time Mr. Edwards became known as the "Daddy of Dried Buttermilk"—due to his efforts being solely responsible for the production of dried buttermilk on a quantity basis.

GRAIN WORLD

NORWAY'S GRAIN AND FLOUR IMPORTS

Final statistics for 1929 as reported by M. L. Lund, American commercial attache in Oslo, show the following imports of grain and flour into Norway:

	1929	1928
Barley	1,105,000 bushels	1,033,000 bushels
Wheat	4,395,000 bushels	3,631,000 bushels
Corn	3,195,000 bushels	4,526,000 bushels
Rye	5,455,000 bushels	5,380,000 bushels
Rye Flour	111,000 barrels	146,000 barrels
Wheat Flour	807,000 barrels	810,000 barrels

According to the management of the Norwegian State Flour and Grain Monopoly, there has been a distinct tendency toward an increased use of

wheat flour, at the expense of rye flour, due to the very small price difference between the two. This is clearly shown in the increased imports of wheat, amounting to almost 20,000 tons. Imports of wheat flour did not change. The increased demand for wheat flour was supplied from Norwegian mills, which have a potential capacity in excess of their present production. This opens up the possibility of larger imports of wheat, with proportionately decreased imports of wheat flour, a perfectly natural development, of course.

The present difference between the price of rye and wheat may contribute towards a smaller consumption of wheat flour, although the Norwegian taste evidently prefers white bread to rye bread.

GOVERNMENT TO STORE RYE

The German cabinet has agreed upon a proposal made by the Minister of Agriculture on February 13 to purchase rye on the open market up to a total value of 20,000,000 marks (about \$5,000,000), according to information received from H. L. Groves, American commercial attache in Berlin. This rye is to be stored in warehouses and elevators to relieve the sales pressure of rye in the hands of the farmers in the open market and also to prevent further dumping of rye on the Scandinavian and Dutch markets.

CHILEAN OATS FOR CUBA

Since the beginning of the present year numerous shipments of Chilean oats have been entering Havana, Cuba, reducing the importation of American oats to an insignificant amount, the Department of Commerce is informed in a report from A. F. Nufer, commercial attache in that city. Chilean oats of a grade similar to our No. 3, White, were being quoted on February 28 at \$34 per metric ton, c.i.f. Havana, the equivalent of approximately 49 cents per bushel of 32 pounds.

This is the first time that Chilean oats have appeared on the Cuban market. In case Chilean exporters are able to undersell American producers all the year round, it might result in the complete loss of the Cuban market for American oats.

FOREIGN TRADE OPPORTUNITIES

Further information is available from the United States Department of Commerce, Washington, D. C., and its district and co-operative offices to duly registered American firms and individuals upon written request by opportunity number. Foreign trade opportunities available in March are as follows:

COMMODITIES	T.O.No.	PLACE
Soft wheat	44133	Port Elizabeth, S. A. (Agency)
Flour	44134	Helsinki, Soumi, Finland (Agency)
Wheat, barley & grass seeds	44164	Riobamba, Ecuador (Purchase)
Wheat	44199	Alexandria, Egypt (Agency)
Starch and dextantine	44224	Paris, France (Agency)
Flour	44239	Guatemala, Guatemala (Agency)

BLACK SEA GRAIN EXPORTS

More than 2,000,000 bushels of wheat have been cleared so far this season from grain ports of the Union of Soviet Socialist Republics. After almost two years of inaction, Russian grain shipping is being revived. Barley, as well as wheat, is moving in small cargoes through the Black Sea. Soviet authorities have rationed the population to a minimum of grain foods, and hope to raise enough money from grain exports to England and other countries to finance the production and distribution on a grand scale, of modern farm machinery.

IN A bill recently presented to the Swedish Riksdag, it is proposed to grant to the government discretionary power to compel the flour mills to mix a percentage of domestic with the imported wheat in milling, the Department of Commerce is informed in a cable report from T. O. Klath, American commercial attache in Stockholm. It is also proposed that imported and domestic flour be mixed under regulations to be issued by the government. The bill further provides for an appropriation of 3,000,000 crowns (about \$800,000) to build co-operative grain storage houses and also for the establishment of a grain purchase fund.

One Hundred Years of Correct Weight

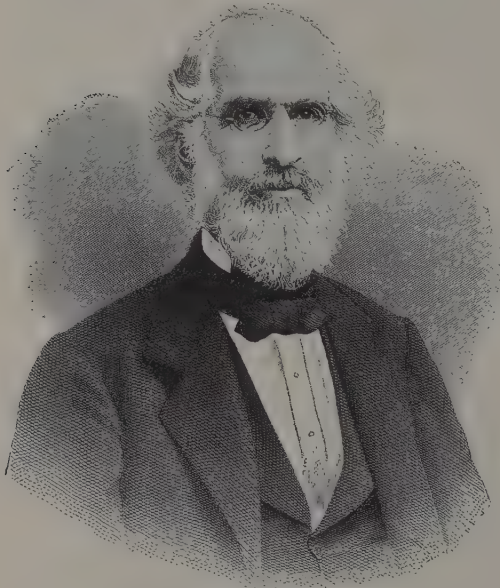
Thaddeus
Fairbanks
in 1830
Discovered
a New
Principle



THE FIRST WAGON SCALE, 1830

Steelyard
Displaced
for First
Time Since
Imperial
Rome

IT MAY well be said that American business achieves its profit by eliminating losses large and small. Hurrying workers in laundries, creameries, packing houses, textile plants, food plants and hundreds of others no longer make those slight "over weighs" that mount to tremendous losses when repeated by the thousands. Industry has been given quick reading dial scales which eliminate errors—dials which make it easy for the speeding operator to weigh correctly. It was realized long ago that an accurate scale does not secure



THADDEUS FAIRBANKS

accurate weighing unless the chance for human error is eliminated to the furthest extent that modern science and ingenuity can devise.

Scales of today are made in special designs to fit the particular requirements of every industry. Manufacturing methods of today are concerned chiefly with mass production with precision and the elimination of all waste both of time and materials. In practically every phase of the production schedule from raw material to finished product the question of accurate weight plays an important part. From the multitude of special weighing machines used in every industry, from meat packing to aircraft manufacture, today, to the steelyard of ancient times is a far cry. From the earliest days there was no improvement until the dawn of the machine era when in 1830 Thaddeus Fairbanks invented the platform scale from which all modern scales are direct descendants.

With the present wide application in all industries the early history of scale development is interesting in that it shows what may come out of small beginnings.

It was in 1815 that Major Joseph Fairbanks moved from Brimfield, Mass., to St. Johnsbury, Vt., and there set up a grist mill and saw mill on the banks of a little creek that ran through this old Vermont town. His sons, Erastus and Thaddeus, had even broader visions and established a wheelwright and foundry business and then developed

into manufacturing saws, pitchforks, cast iron plows and stoves; in about the year 1830 the "hemp craze", as it was called, struck Vermont and the farmers expected to make substantial fortunes in raising hemp instead of corn. Contracts for making hemp dressing machines were awarded to the Fairbanks brothers. The question now arose—How was the hemp to be weighed? The old steelyard was of little use for this service and so Thaddeus conceived the idea of constructing a huge steelyard beam suspended from a high frame with chains to grapple the axle of the cart. An approximate weight was thereby obtained by a slow and laborious process.

Thaddeus studied the problem and finally conceived the idea of supporting the platform upon an A shaped lever with the tip of the lever connected to the steelyard by a rod. Though not suspected by Thaddeus at the time, he had revolutionized all weighing methods and at that moment the steelyard of old Rome took its departure.

From this small beginning the platform scale in all of its ramifications was developed until today

ing simply of some castings with the pivots properly set, a beam and a set of weights. The builder would take these parts with him to where the scale was to be set up; there on the job he would cut some timbers about 12 feet long and by fastening these castings to them set up a complete scale. He would go out into the country and cut down a tree, preferring a cherry if he could find one, square the timbers with an adze; then taking the casting from his saddle bags, he would make a lever. As there was very little shrinkage lengthwise of the wood a very serviceable scale was soon made.

These original designs of Thaddeus Fairbanks have had the greatest influence upon all scale building in the world ever since the first patent was granted. Consider the construction of the familiar portable platform scale which can be seen today in every store and factory. All scales of every make are built along the same general lines and no changes in general appearance have been made in 100 years. It is a wonderful tribute to the St. Johnsbury inventor that an absolutely new design, made



MODERN HOPPER SCALE IN MILL ELEVATOR

the same principle is in use whether in a health scale, a laundry scale or the ponderous ones used for weighing the largest railway locomotives.

A new spirit of industry was being born in the early part of the nineteenth century and Thaddeus Fairbanks had caught that spirit. Typically American and with all the ingenuity that is traditionally associated with the New England Yankee he set out on an undertaking that has carried his name and the idea for which it stands into the remotest corners of the earth.

One of his first designs was a farm scale consist-

100 years' ago, should continue unchanged through all these years.

The same is true of the "straight lever" railroad track scale, almost a century old. With one exception all such scales today have been copied from the general arrangement of this scale. Naturally they have been strengthened and improved to keep pace with modern traffic conditions, but the principle remains the same.

The United States patent for the railroad track scale was granted Thaddeus Fairbanks January 13, 1857, he being the first to introduce these scales into

the United States. Track scales have been continuously manufactured at the St. Johnsbury plant for nearly 75 years and the leading railroads in the United States, as well as in many foreign countries, have adopted them as standard. They are so accurately adjusted that a scale loaded with 150 tons will readily indicate an addition of 10 pounds on the platform.

Brought out in 1900 the type of registering beams were an advanced mechanical product that met with a ready sale and are still extensively used in elevators, rolling mills, refineries, steel plants, railroads, etc. The beam is of the usual pattern but in addition to this the under edge of the beam is provided with a series of type figures corresponding with the weight in graduations. The poise is provided with an internal mechanism so that when the load has been balanced upon the scale by the usual process, a ticket is inserted in the slot of the poise and by means of the handle an impression is made, giving the weight of the load.

A track scale with a mechanical hump installed in 1911 embodies more new features in its design than in any constructed in recent years. The unique features were the suspension bearing supporting the platform, the mechanical relieving gear which eliminates the dead rail and the mechanical hump which provided for proper movement of the cars over the scale, practically eliminating the necessity of applying the brakes to the cars while on the scale.

In 1913-14 the plate fulcrum principle in scale construction was applied to railway track scales. This idea had been developed in 1875 and was then patented for use on large capacity scales; it was

first used by the inventor, A. H. Emery, in that year on steel testing machines built for the bureau of standards. The principle was given considerable study by Fairbanks' engineers with the result that it was finally adopted for track scale installations.

With the advent of the automobile truck which



STEELYARD IN EARLY ROMAN DAYS

slowly but quite as surely began to displace the horse-drawn wagon and truck, the old type wagon platform scale became inadequate and there was introduced a sturdier weighing machine known as the Type S Auto Truck Scale which found ready acceptance.

Self-indicating or dial machines have been the most recent development in scale making and the St. Johnsbury factory now makes them in capacities from 50 to 40,000 pounds. Leonardo de Vinci who lived in the Fifteenth Century, is credited with in-

venting these scales, drawings of them in his note books having been preserved. The pendulum mechanism has proven much more accurate and serviceable than the springs that were once used, while the double pendulum gives the most accurate results. Dial scales and automatic weighing eliminate to a great extent the human element and it may be safely predicted that there will be a great extension of this method of weighing in future years.

The world's largest scale was built recently at the St. Johnsbury factory and is located at the plant of the Hamilton Furnace Company at Hamilton, Ohio. The Hamilton foundry had installed a movable mixer built on railroad trucks and the Fairbanks Scale weighs the entire load, the car and its contents. The loaded mixer weighs a million pounds, six times the weight of a loaded coal car. The new scale is an exact duplicate of other scales except for its large proportions, being a regular Fairbanks two section, railroad track scale. Though simple in construction its accuracy is guaranteed to within 20 pounds, 0.002 per cent of full scale. A man stopping on the scale would find his weight registered amazingly close to accuracy.

As America's industries have become specialized, so, too, have scales been designed to meet the particular requirements of each industry. The registered amazingly close to accuracy. Accuracy of the modern scale must be matched with an in-built ability to retain that accuracy under special conditions of operation. Scales are now built in an almost endless variety to meet these present day requirements of speed and sustained accuracy.

TRADE NOTES

The time for spring farm work is approaching and before we know it threshers will be in the field cutting the golden grain. That grain will have to be tied,—which reminds us that now is the time to make arrangements for handling International "Big Ball" Twine. A letter to the International Harvester Company, Chicago, will bring you full information as to the profit possibilities in this sideline, so easily handled and which does not entail a great outlay of capital.

The Flexible Steel Lacing Company of Chicago announces that it is now possible to supply steel rocker hinge pins for No. 15, and a new type of corrugated wire hinge pins for Nos. 00 and 1 Alligator Steel Belt lacing. The rawhide pins formerly used in these lacing sizes were not satisfactory under all atmospheric conditions. The new pins have proven



NEW WIRE (ABOVE) AND ROCKER PINS

their superiority in extensive trial tests and their use can be recommended. Hereafter boxes of Nos. 00 and 1 will be supplied with wire hinge pins, and all boxes of sizes 15 to 75 inclusive, with sectional steel rocker hinge pins, unless orders definitely call for rawhide pins. Samples of the new pins, illustrated herewith, will be furnished if desired and upon request.

Within the past 10 years there has probably been more experimenting with animal nutrition than in the 10 centuries preceding. Many new feedstuff ingredients are being tried out, and it is significant the number which are reported: "Nearly as valuable, or practically as valuable, as semi-solid buttermilk." The Consolidated Products Company of 2400 Lake Park Avenue, Chicago, will be glad to tell you why semi-solid buttermilk is the standard with which so many other products are compared in feeding value.

The Diamond Rubber Company of Akron, Ohio, reports that the great number of distributors handling belting, hose, and other Diamond Rubber

products, has been augmented within the last month by the Crawford Mill Supply Company of Winston-Salem, N. C.; Couse & Bolton Company, Inc., Newark, N. J.; and American Machinery & Supply Company of Omaha, Neb. There are 11 service centers scattered throughout the country where full supplies are kept on hand, and distributors everywhere.

The Randolph Company of Toledo, Ohio, has been doing a large export business in Randolph Driers recently besides making some important installations in this country. Seventeen Driers have been shipped to Russia, U. S. S. R.; one to Mexico, and one to Haiti. The Victoria Elevator of Davenport, Iowa, has installed a 500-bushel Randolph Direct Heat Grain Drier and a 750-bushel Drier has been installed in the new plant of the Pillsbury Flour Mills Company at Springfield, Ill. A drier was formerly installed in the Pillsbury plant at Atchison, Kan. The drier at Atchison is operated on gas while that at Springfield uses coke.

While the farm relief act is a political rather than an economic measure, economics was at the bottom of the agitation, and the basis was low yield of farm profits. Government figures show that when corn yields only 13 bushels per acre, the cost per bushel is \$1.34; when the yield is 41 bushels, the cost is 61 cents. Increasing the yield per acre and quality of grain is the answer to the politician's propaganda of farm relief, and grain dealers have it in their power to aid greatly in this respect. The Armour Fertilizer Works of Chicago will be glad to show you how fertilization can bring this about, and they will also assist in getting the message to your farmer customers and make a most attractive handling proposition. The grain dealer is in the best strategic position to bring this increased prosperity to his community and he will profit two ways, in selling the fertilizer and in handling the increase in grain yield.

STANDARDIZED DRIVES FOR SCREW CONVEYOR

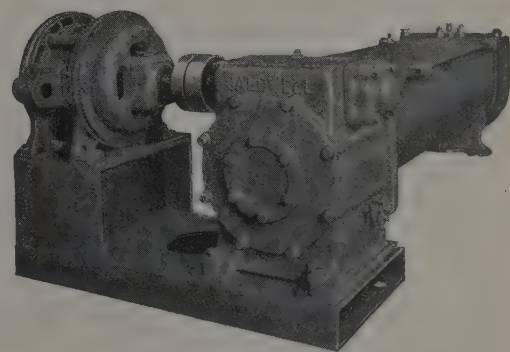
Pursuant with their plan to standardize various driving mediums, H. W. Caldwell & Son Company, Chicago, have announced Caldwell Standardized Drives for Screw Conveyors.

This new drive for screw conveyors, from 8-inch

to 16-inch diameter, is compact, clean-cut and trim in appearance—highly efficient, positive, and quiet in operation. The Caldwell Screw Conveyor Drive is made in two arrangements. Type "C" and Type "D," are the two units now available.

The Type "C" drive consists of two speed reductions from motor to screw conveyor, each through a high grade power transmission medium—a Link-Belt Silent Chain Drive fully enclosed in an oil-retaining steel casing, and an efficient worm gear speed reducer, designed to serve as a thrust end and screw conveyor drive.

The Type "D" drive consists of a direct coupled reducer, mounted with motor on unit base plate. This type of drive permits the selection of a Caldwell Worm Gear Reducer according to horsepower



TYPE "D" CALDWELL STANDARDIZED DRIVE

rating, without regard to the size of the conveyor trough on which the drive is to be mounted.

All of the reducer bearings on both types are anti-friction, with automatic lubrication. Oversize Timken bearings on worm gear shaft take the conveyor end thrust in either direction. The Caldwell Drive is adaptable to horizontal or inclined conveyors, with proper adjustment of the oil levels.

Standard motors of 860, 1,160, 710 or 1,430 r.p.m., can be accommodated on these conveyor drives. Standard drives provide a range of conveyor speeds from 45 to 125 r.p.m.

These drives are an addition to the Caldwell Standardized Elevator Drives, recently announced by H. W. Caldwell & Son Company, Chicago, who will be pleased to send literature descriptive of these units to anyone writing for it.

NEWS LETTERS

BALTIMORE

ROBERT C. NEU CORRESPONDENT

FORMER president Blanchard Randall, Jr., of the Baltimore Chamber of Commerce, gave a dinner at the Baltimore Club on the evening of February 21 to all the former presidents of the chamber, the directors who served with him during the past year, the chairman of the grain committee, the traffic manager, and the secretary. During the evening he was presented with a handsome silver fruit bowl by the directors, the presentation address being made by former president, Wm. H. Hayward.

James H. Gambrill, a retired miller, who has been living all his life in Frederick County, Md., celebrated the one-hundredth anniversary of his birthday on February 24 at his home on Court Street, Frederick, Md. A birthday dinner attended by relatives and friends was on the day's program, the town fire bells rang in his honor, and the chimes of the Trinity Reformed Church pealed forth a birthday greeting. With a keen memory the centenarian recalls the unsettled times of the Civil War, during which he watched the battle of Monocacy from his front porch, finally taking refuge in his cellar when danger from flying missiles threatened. Mr. Gambrill has two sons, James H., Jr. and C. Staley, who operate a feed and grain business in Frederick, Md., and the Gambrill Grain Products Company, of Baltimore.

Thos. G. Hope, member of the grain commission firm of Legg & Co., of this market, sailed March 4 with his wife on a 16 days' trip to Havana.

The name of Clarence M. Stickell, miller and grain dealer of Hagerstown, Md., is posted as an applicant for membership in the Baltimore Chamber of Commerce.

J. A. Peterson, manager of the Port Covington Elevators of the Western Maryland Railway Company, has returned from an extended southern trip, during which he visited old friends at Jacksonville, Fla., New Orleans, La., and Fort Worth and Galveston, Texas.

The numerous friends in the grain trade of E. H. Beer, president of E. H. Beer & Co., Inc., of this market, will regret to hear that his wife suffered a stroke of paralysis during a recent visit with Mr. Beer to friends in New York. She was removed to a New York hospital, where her condition improved steadily, permitting her return to her home in this city on March 2.

Earle C. Wight, assistant general freight agent of the Baltimore & Ohio Railroad Company, and a well-known figure on exchange here, has recovered from a recent attack of pleurisy.

The clearance from the port of Baltimore on February 24 of the Japanese steamer *Takoaka Maru* with 37,333 bushels of Canadian feed wheat for Japan is believed to mark the first shipment of wheat from an Atlantic port to the Orient. James Richardson & Sons, Ltd., of Montreal, Canada, were the shippers, and the loading of the grain here was under the supervision of Hammond, Snyder & Co., Inc., forwarders of this market.

At the regular monthly meeting of the Board of Directors of the Baltimore Chamber of Commerce, held February 10, the following gentlemen were elected as the Arbitration Committee for the ensuing year: John H. Gildea, Jr., Robert E. Lee Marshall, Blanchard Randall, Jr., Walter B. Brooks, T. M. Maynardier.

That it is possible to manufacture farm tractors in Ireland, pay the freight on them to this country, and sell them at a profit as great or greater than realized on the same machines produced in the United States, is evident from the continued im-

portation through the port of Baltimore of farm tractors by a leading American manufacturer. 602 of these tractors arrived here from Cork, Ireland, in February, and further shipments are to follow.

The grain and hay firm of George E. Morrison & Co., of this city, composed of George E. Morrison and Herman Runge, was dissolved by mutual consent on March 3, 1930. Each of the partners will continue in the business under their individual names.

On February 25, the Pennsylvania Railroad reduced the insurance rates applicable to its domestic elevator No. 2 in this city from \$2 to 40 cents per \$100 value on fire and 15 cents on explosion, which will place this house on the same basis as the domestic elevator of the Baltimore & Ohio Railroad at Mount Clare.

Doctors J. G. Dickson and J. E. Johnson, barley experts of the University of Wisconsin, Madison, Wis., were in Baltimore on March 1, to confer with local grain exporters in regard to the fungus which attacked barley last season in some of the important growing sections and which caused this grain to be excluded by German buyers. The visitors made an inspection of Baltimore's port facilities and were conducted through the Locust Point Elevator of the Baltimore & Ohio Railroad Company.

Irving Blaustein, who succeeded his late father in the management of the General Flour Company, of this city, was elected a member of the Baltimore Chamber of Commerce at the regular monthly meeting of the board of directors of this organization, February 10.

Chief Grain Inspector David H. Larkin, of the Baltimore Chamber of Commerce, celebrated the fifty-third anniversary of his birthday on March 1 with a family dinner at his home.

PEORIA

IVAN L. REVEAL CORRESPONDENT

PLANS for the expansion of the elevator capacity of Peoria by the addition of a new wing having a storage space of 500,000 bushels to the East Peoria Elevator Company, have been completed, according to George W. Cole of the George W. Cole Grain Company and vice-president of the East Peoria Elevator Company. It is expected that actual work on the new addition will commence within a few weeks. The present elevator capacity of the East Peoria elevator is 500,000 bushels and the building of the new bins will make this the largest public grain storage unit in the Peoria industrial district, and the second 1,000,000 bushel elevator in this district, the other being that of the American Milling Company, a branch of Allied Mills, Inc., which was completed last fall.

Plans for extending the capacity of the East Peoria Elevator Company plant have been under consideration for nearly six months, but until within the past two weeks the definite decision to proceed with the building had not been reached and the financing plan had not been completed.

The concern is a stock company and the new building was made possible by increasing its bonded indebtedness by \$45,000 to a total of \$125,000, and by the sale of \$60,000 worth of preferred stock, issued on a 7 per cent basis.

While the actual contract for the work has not yet been signed, it is expected by officials of the company that this will be completed within the next two weeks. Officers of the company are: George A. Shurtleff, president; George W. Cole, vice-president; and Walter G. Causey, secretary-treasurer.

The Whole Wheat Products Company, a new industry to manufacture whole wheat flour and allied products, has been organized here and incorporated with a capital stock of \$150,000. Dr. D. R. Dugan of Springfield, Ill., has been elected president; O. B.

Richeter of Osceola, Iowa, vice-president and Charles Kent, Peoria, Ill., secretary-treasurer. Directors in addition to the officers are: Gordon B. Heughens and J. P. Houlihan. M. J. Reidel is to be general manager.

The company, according to Mr. Reidel, will specialize in the manufacture of a whole wheat flour of a new type, which will be produced by a special process of sterilization, which makes it palatable, permits it to be stored for any length of time and gives it a more diversified usage than the type of meal usually ground from whole grains. Negotiations are under way for the purchase of the old Corno Mills and it is expected that production will be started by May 1.

Characterizing the present situation in the grain market as "demoralizing," spokesmen for Peoria grain men say that the burden of responsibility for wheat price crashes are the results "of political meddling in business." H. H. Dewey, a member of the board of directors of the Peoria Board of Trade, with the sanction of that body, expressed views which are considered the composite opinion of Peoria grain men.

"At the very beginning it should be understood," said Mr. Dewey, "that we have no quarrel with co-operative marketing and have never had. If it is the correct system, it is the one which should govern; but it was tried with the Brazil coffee plan and with rubber by Great Britain, and both plans have failed.

"The whole Government farm relief movement, or particularly that phase relating to the Federal Farm Board, has not a single grain man associated with it. They have been very careful not to get advice from anyone having anything to do with grain.

"The policy of the board is inconsistent and it is not protecting the farmer. In Chicago, for instance, where the board has been buying, it has taken only No. 2 Hard wheat, leaving No. 2 Yellow Hard and No. 2 Red. In this we believe they are discriminating against the farmers, because all farmers do not have No. 2 Hard.

"The demoralized condition of the grain market, particularly with regard to wheat—and wheat, incidentally, affects all other grains—is due primarily to political agitation and Government meddling in business, extending over a period of many months. The politicians urged the farmers to hold their last crop for better prices. In the meantime, the great Canadian wheat pool was functioning greater than ever before. The European market is from August to January. The Canadian wheat pool and agitation by the farm board caused prices to advance at the last harvest, but it was subsequently found that Europe had plenty of wheat, the Argentine crop was good and Russia was producing more than ordinary.

"As a result, the wheat moved out of farms during the last six months, remains on the market. It is not supplying a demand, because there is no demand. What trading exists is simply among those taking out of one pocket and putting into another.

"We are in no way diminishing the supply from last harvest, and unless we sell and consume between now and the coming harvest, we will go into the 1930 harvest period with more wheat on hand than ever before. The farm board, by holding up prices, is encouraging production. There will be more acres devoted to wheat this year than ever before, because every farmer has been led to believe that he will receive a good price. There is no way to restrict acreage, and with last year's crop still in the warehouse of the country it is evident what the situation will be.

"We believe the grain dealer could have prevented much of the present condition. It must be remembered that the major portion of the last crop left the farmer's hands, through the grain men, at prices above the government price. This was before the farm board took charge. That is just an indication that the grain trade is provided with the knowledge and the method to handle the situation better, more efficiently and more economically than the government. The Peoria Board of Trade, for instance, is operated upon a gross profit of only one to two per cent on values.

"If a man is ill he does not call a plumber or an electrician. Grain-dealing is a profession, but the politician has ignored and condemned the grain business and as a result of his agitation and meddling, the country has a surplus supply of wheat from last season's crop, without an im-

mediate demand, and with prospects of a greater crop than ever before, coming on, with no possible way of getting it out of the country before next August. No one knows what conditions in Europe will be then.

"Corn and oats would have been much higher had wheat not reached its present levels, as wheat affects all other grains—always has.

"The independent grain man cannot compete with co-operatives. But in fairness to the Government he should see that the co-operatives are not discriminated against and also that there is no discrimination in their favor. Permit the system to stand on its own feet. It is entirely too early to say whether the Federal Farm Board is a success or not, but certainly it is not too early to acknowledge that the country has more wheat than it can dispose of just now, and that the situation is due to political meddling."

MILWAUKEE

C. O. SKINROOD CORRESPONDENT

MILWAUKEE grain traders had a little cheerful reading the past month when the reports came in on receipts showing that there had been a decisive increase in corn offerings for February. This was in marked contrast to recent months when the figure on offerings of corn went down instead of up, as expected. The supply of corn received here for the month of February soared to 1,830,000 bushels as compared with a supply of 1,266,000 bushels for the corresponding month one year ago. Milwaukee grain men believe that there are large amounts of corn still left in the country and that this corn should be dribbling steadily into the markets for several months in the future. In fact traders say that corn business ought to be better than last year if conditions work out as expected.

Vessel and navigation experts of Milwaukee, who have been studying the prospects carefully, declare that there is considerably less ice in the Great Lakes than a year ago, so that the outlook is very bright for an early opening of navigation. However, the vessel interests are not so much concerned with the early running of ships because they say that merely spreads the traffic over a longer season, without increasing the business, so that early opening of navigation is really a handicap and hardship for vessel owners.

The high water in the lakes, which helped shipping last year, is likely to prevail again according to information received at Milwaukee. Both Michigan and Huron are about .03 of a foot lower than in January, a negligible change. As a rule, the February level is higher than that of January but this year is an exception. However, the February level of Lake Michigan is the same as February of last year, so that the prospects are as good for this season as they were a year ago. In addition, the height of the water is 1.6 feet higher than the average level for the last 10 years. This gives an indication that the lake water level is considerably better than the average, and vessel men hope this will be the situation for the entire shipping season of 1930.

Governor Walter J. Kohler of the state of Wisconsin has named William H. Scott and William J. Keaough of Superior, Wis., as the new members of the Wisconsin grain and warehouse commission. Mr. Scott has been connected with the commission as an employee for about 21 years and for the last three years he has been the chairman of the commission. Mr. Keaough is the deputy clerk of Douglas County. He is chosen to succeed John A. Bardon.

Milwaukee has a large storage of grain this year, according to officials of the chamber of commerce, the total supply here being about 1,100,000 bushels more than for the same date in March one year ago.

Only a miracle can save the grain market, and the Federal Farm Board with its large holdings of grain, is the opinion of some of the leading Milwaukee grain dealers. After watching the farm board buy grain and stack it up waiting for a market, the grain dealers here are frankly puzzled as to what will be done with the grain ultimately. The grain men say that only in case of a poor crop of winter and spring wheat can the situation be saved, and then only temporarily.

One important item of news to grain dealers is that the Chicago and Northwestern Railroad will spend \$300,000 for a new car ferry slip at Manitowoc, Wis. It will be erected for the handling of

through freight. The new slip will be built as early in this season as the weather will permit. The Northwestern road is also rebuilding and relaying its tracks so as to have them ready for the promotion of shipping through the proposed car ferry docks.

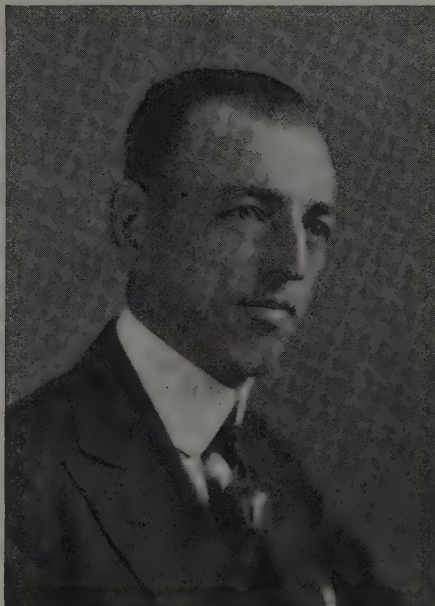
"The United States is at least 100,000,000 bushels behind in its exports of grain," said W. A. Hottensen, leading grain dealer of Milwaukee. "We must get that export business in order to move the surplus and there is no other alternative."

"No one can blame the Europeans for buying grain in the cheapest market," said G. W. Kruse. "As long as Canadian and Argentine wheat is lower than that of the United States, even so much as the fraction of a cent, they will sell the grain for export and we will not."

More reports are current at the Milwaukee Chamber of Commerce that a new stock exchange will be started here without the aid and the co-operation of the local investment houses. This question agitated the grain men for many months and finally it was found that the investment leaders would do nothing about the project, preferring the present free-for-all method of handling unlisted securities which will permit of larger sales commissions and fees for handling.

The stock project is by no means dead as far as the chamber of commerce is concerned. And there are some members who strongly favor going ahead and starting the stock exchange, thus letting the investment concerns follow their own course. No official action has been taken as yet and it is recognized that considerable study will have to be made yet before the grain men feel that the entire project will be feasible and practicable.

There is still some agitation here with reference to the possibility of bringing in more railroads into



J. L. BOWLUS

the city. Among the leaders who are opposing the movement to bring in one railroad, or bring in four as is being advocated by some, is J. L. Bowlus, the transportation manager of the Milwaukee Chamber of Commerce. Mr. Bowlus expressed his ideas to the city land commission in very forceful terms when he stated that Milwaukee has plenty of railroads at the present time; that the rates here are really low—if not lower than at many other cities. He asserted that the bringing in of new roads would not bring in any additional industries, so that the net effect of any such scheme would merely split up the present traffic between a larger number of railroads.

Not only that, said Mr. Bowlus, but the railroads now in the city would undoubtedly curtail all their expansion programs if there was a probability that other lines would build in here. In that way, he said, the present splendid service would be materially hampered.

H. A. Scandrett, the president of the Chicago, Milwaukee, St. Paul and Pacific Railway, asserted that his company would spend many millions of dollars in new building here over a period of years. New yards, new shops and a large number of railway projects are being carried out, he said and the money spent here in the future will be much greater than in the past. These far-reaching plans, it is believed, would be curtailed materially if there was even a chance that other railroads would be allowed to build in here.

DULUTH

S. J. SCHULTE CORRESPONDENT

THROUGH the election to Duluth Board of Trade membership of W. G. Kellogg, the national grain corporation now has a direct connection on this market. The only other business change recorded last month was the election of Sidney Wick who purchased the membership of D. W. Stocking. Other grain trade changes are reported to be in abeyance on this market as a result of conditions brought about recently.

With the grain trade at "sixes and sevens" as a result of the controversy between officials of the Federal Farm Board and the regular exchanges, grain commission and elevator houses on this market have been sitting tight until the clouds had an opportunity to clear away. A complete stoppage was finally brought about on this market through the refusal of the Farmers Union Elevator Association to purchase any Spring or Durum wheat except from a recognized co-operative. With all the regular marketing agencies sitting back, the records showed that with such impossible marketing conditions all hands were ready to call quits. In the meantime absolutely no market was accorded here in the lower and intermediate grades of Spring and Durum wheats, except all buyer's choice. The above outline describes market conditions as they stood up to the time of the regular marketing agencies conference at Chicago the beginning of this month, a truce being effected through the Legge farm body finally agreeing to withdraw its stabilized price basis. In official quarters here, the apparent acceptance by the Federal farm body of the rule that the law of supply and demand must finally govern the markets was regarded with great satisfaction. Ray Newell, president of the board of trade, on his return from the Chicago conference said, "We hope that the exchanges will be able to go along now that the farm board has made the concession as announced regarding the throwing into discount of the arbitrary prices that had previously been on effect."

Officials of the farm marketing association here were also credited with materially relieving the situation by entering the spot market in picking up Spring wheat and Durum. That contributed towards marked betterment in trade sentiment and resulted in Durum being raised a few points from the \$1-mark to which it had sunk. Durum was furthermore reported to have been taken in substantial lots by a Duluth trader for shipment to Chicago.

No betterment has been shown so far in the spring shipping outlook from this market. While an inquiry for around lot of boat space was said to have materialized, it could not be found that any contracts were entered into so far. Receivers here were reported to be all set to receive any reasonable offer and expectations now are that a fair movement to Buffalo on millers account will be brought about around the opening of navigation. As it is, grain interests are conceded to be stalling about in view of the limited storage space now available. It was noted that the Consolidated Elevator is still accepting lots of farm board grain at Elevator H, and the Great Northern Elevator S at Superior has also accepted a purchaser of that grain for store lately. Officials on the Duluth Board of Trade are admittedly still deeply engrossed in studying the wheat marketing and price stabilization problems. So many bearish factors are still conceded to enter into the situation that traders are holding their commitments down to a minimum. In the meantime interest has been enhanced by the fact that grain storage facilities at Duluth and Superior will be increased 15 per cent through the addition to the Great Northern and Occident Terminal Company plants for which the letting of contracts were announced recently. With the completion of those projects Duluth and Superior will have a gross elevator storage capacity of 46,950,000 bushels.

The Duluth market in rye was described as absolutely dried up for some time back and no special developments are hoped for in the near future. "We have given up looking forward to any developments in the rye market as long as the present general mixup exists," said F. E. Lindahl of the Cargill Commission Company.

Remembering the heavy premiums obtainable by shippers of protein Spring wheat and Durum wheat during the last two seasons, growers over the Northwest are loud in their expressions of discontent regarding the withdrawal of demand from millers for wheat running heavily in protein, especially of Durum required in the manufacture of their flour specialties. Two protein inspection offices established

in Duluth have consequently been experiencing slow periods and are operating with skeleton staffs. A revival in protein interest is taken as assured as soon as conditions become more normal.

G. H. Spencer, secretary of the Consolidated Elevator Company intimated that storage space in his firm's elevator is being rapidly emptied though receipts have been running light for the season. Space was afforded for wheat taken for the Farmers Union Terminal Elevator Association.

The extent of the grain movement at the head of the lakes terminals was revealed in stocks of all grains at the week-end, March 7, aggregated 36,041,390 bushels, an increase of 2,201,000 bushels in the week of March 8. Holdings included 28,136,000 bushels of wheat; 547,000 bushels of corn; 2,415,000 bushels of oats; 2,931,000 bushels of rye; 2,931,000 bushels of barley and 205,000 bushels of flax. The run from the country to the terminals here is scheduled to be held down to a minimum until the opening of navigation on account of the lack of storage room.

ST. LOUIS FAIRMOUNT CORRESPONDENT

THE following membership on the St. Louis Merchants Exchange were posted for transfer: Okley H. Gibbs of the Lucke Gibbs Grain Company of Omaha, Neb., on transfer from C. B. Fox of New Orleans, La.; W. M. Irwin, representative of the Union Starch and Refining Company on transfer from H. E. Hughes.

Henry W. Mack departed this life on February 19 at 4:50 a. m., after a long illness. Mr. Mack was one of the oldest members of the exchange, having been engaged in the hay and grain commission business in this market over 50 years. Much regret and sympathy was expressed to his widow.

Julius Mayer, manager of the Continental Grain Company, met with a painful accident on March 4 when he sprained his ankle. This did not keep him at home as he showed up on the merchants exchange floor the next morning with crutches. It is hoped that Mr. Mayer will soon be able to discard his crutches.

On the morning of February 29, a large padlock was hung on the door to the trading hall of the St. Louis Merchants Exchange. It was discovered of course that this was placed by some wag, the lock being only a cardboard representation.

Ward Brown, corn buyer of the Ralston Purina Feed Company, returned on March 3 from his mid-winter vacation of about 22 days which he spent at Coca, Fla. His wife and daughter enjoyed the vacation with him. Mr. Brown is looking remarkably well, being brown as a berry, although apparently very happy to be back.

Eugene Dreyer, president of the Dreyer Commission Company of this city, was back on the exchange floor on March 3 after a three weeks trip, including two weeks at Hot Springs and a few days at Los Angeles, Calif. Mr. Dreyer is enjoying the best of health and apparently the vacation was very beneficial.

George C. Martin, as representative of the Rural Grain Company, on February 21 purchased a few cars of No. 1 and No. 2 Red Winter wheat at the Government basis of \$1.25 for No. 1 Red and \$1.23 for No. 2 Red. The purchases of the wheat in this terminal by the stabilization corporation have been very small indeed, as there have been no prices made on Hard wheat in this terminal by the stabilization corporation.

Roscoe R. DeArmond, supervisor of weights and samples of the merchants exchange, has had a versatile career. He was born on a farm in Washington County, Iowa, a son of Samuel J. DeArmond and Martha A. His family moved to Lenox, Iowa, where they lived for some time and then moved to Maryville, Nodaway County, Mo., on a farm.

Mr. DeArmond's first work was necessarily on his father's farm. He joined the regular army in 1904, remaining in the army until 1907, serving in the Philippine Islands and at San Francisco. After he left the army he entered the employ of the Russell Grain Company at Kansas City, Mo., in 1908, opening up a branch office for the Russell Grain Company in St. Louis in 1915. He returned to the Kansas City office of the company in 1916 after the death of Mr. Russell. He remained there from May, 1916, to August, 1917, when he entered

a training camp for officers at Fort Sheridan, Ill., going over-seas in December, 1917, and being commissioned as first lieutenant. He remained in France until March 19, 1919. Mr. DeArmond was gassed and wounded in France and was in the hospital from September 29 to November 7, 1918. Mr. DeArmond was honored by the French government, receiving the Croix De Guerre on his retirement from the army.

He returned to St. Louis and entered the grain commission business under his own name as the DeArmond Grain Company, which he operated for some time. While in the grain business in St. Louis he was a member of the committee governing the department of weights and samples. The committee at that time was anxiously looking for a man to head the department and just when it seemed impossible to secure a desirable man he stepped into the gap and offered his services to the merchants exchange to head the department of weights and samples, becoming supervisor in June, 1923. He has been annually appointed to the same position. His work as supervisor has been very satisfactory to the membership and the committee for the department is well organized and has given very efficient service.

Mr. DeArmond's training as an officer in the army has placed him in a position to command and control men. The employees of the department recognizing Mr. DeArmond's ability and, desiring to perfect the department, have lent him every possible assistance with the result that the department is a very efficient one. Mr. DeArmond has appeared at the various conventions and is well known to all the country grain shippers who recognize the fact that St. Louis weights when supervised by the merchants exchange weighing department are accurate. He has not only made the department here a very efficient one but in his visits to other grain terminals, mills and elevators at various points on inspection trips, his work and ideas have been taken up and accepted.

Mr. DeArmond is 46 years old, tall, and of commanding appearance. He is quiet, unassuming, and devoted to his work. Mr. DeArmond is married and lives on his small farm in St. Louis County. He is recognized as a specialist on weights, scales, and other matters connected with the proper weighing and handling of grain. Mr. DeArmond will undoubtedly remain with the St. Louis Merchants Exchange Department of Weights and Samples as his work has been so satisfactory that there is no thought of displacing him.

INDIANAPOLIS H. M. RUDEAUX CORRESPONDENT

DURING the past two weeks the movement of grain to this market has fallen off considerably. Advice from shippers is very light and it appears that the usual spring dullness is not far away. Weather conditions for the past 10 days have been very favorable and unless adverse weather sets in farm work will open up, which means a light movement of grain until after corn planting.

The Winter wheat condition is not very favorable according to reports. In some sections the fields look spotty, other locations report a poor stand, and some parts of the state report fields in excellent condition. There is no question but that many fields have been winter killed and only the most favorable weather will bring the crop up to expectations.

The Indiana Brotherhood of Threshermen assembled in the Hotel Severin, February 20, for its twentieth annual convention and to discuss problems of the industry. The address of welcome by William Wells of the hotel, formally opened the convention in the afternoon and was followed by reports from William H. Newsom, president, and E. E. Isenhower, secretary. A large increase in membership during the last year was reported.

From various parts of the state come reports that corn intended for seed is low in germination qualities. Most farmers are sticking to the varieties of corn ordinarily grown in Indiana and it is with such seed that they are concerning themselves. In sections where the European corn borer has done great damage, experiments with the corn that will resist it have been in progress, but corn that can be considered borer-proof is not yet available for general use in this or any other state. Farmers know that it would be foolish to follow haphazard methods in seeding, and for that reason tests are general. It is from such tests as have been conducted that the bad news is coming. The condition is attributed to bad weather during the

growing season, failure to harvest the corn when it should have been taken from the field and other causes. Regardless of the cause, the chief interest now is in the result, and the progressive farmer has no intention of making a gamble out of his prospective corn crop. He will use some approved method to test every ear of seed corn he has in reserve and will seed only that which shows high germination qualities.

Beginning March 10, the membership committee of the Indiana Grain Dealers Association will open an active membership drive. Hal Thompson, of Kokomo, Ind., is chairman of the committee that will make a determined effort to get not less than 100 new members. The slogan of the organization this year is, "Every member get one new member". There is no reason why every grain dealer in Indiana should not be a member of the state organization. It has accomplished much in the past and with the many clouds that are darkening the future, every grain dealer should be interested in a stronger association.

John McComas, grain dealer and operator of several country stations, died Sunday, February 23, while driving his automobile at Meridian and Maryland Streets. As the car approached the corner, persons on the sidewalk noticed McComas slum forward and the car came to a gradual stop. He had thrown the car out of gear but had failed to stop the motor. Death was due to heart disease. He is survived by the widow, his mother, a daughter and son.

The new 1930 directory of the Indiana grain dealers will be mailed in the next few days, according to reports from the secretary of their association, Fred K. Sale.

KANSAS CITY KENNETH FORCE CORRESPONDENT

BY A vote of the membership of the Kansas City Board of Trade, February 24, three amendments to the rules of the exchange regarding the paying of inspection fees when Federal appeal is called, commission charges on stocks and commissions on grain futures only when the grain is delivered, were adopted. Commission charges for buying and selling grain for future delivery were generally defined before as \$10 for 5,000 bushels and \$3 for 1,000 bushels, or multiples thereof.

Transactions in wheat futures on the Kansas City Board of Trade in February totaled 53,857,000 bushels, the largest February transactions since 1925 and the third largest since records were begun by the Federal board in 1921. Transactions a year ago were 36,929,000. Transactions in corn futures were 17,021,000 bushels, compared with 15,959,000 bushels in February, 1928.

Records of the Kansas City Board of Trade show that cars of wheat reaching this market contain an average of 1,530 bushels each and this figure is being used to convert carlot receipts into bushels. Loaded out cars average 1,490 bushels each.

The Wabash Elevator in North Kansas City, which has a capacity of 2,000,000 bushels of grain, will be enlarged at once to 3,000,000 bushels, it was announced March 4 by Paul Uhlmann, vice-president and general manager of the Kansas City office of the Uhlmann Grain Company, operator. The Uhlmann Grain Company also operates the Missouri-Kansas-Texas Elevator in Kansas City, which has an aggregate capacity of 2,300,000 bushels, giving the Uhlmann concern storage of approximately 5,300,000 at this market.

Damages estimated at \$80,000 was caused when fire destroyed an elevator at the Winfield, Kansas, plant of the Consolidated Milling Company on the afternoon of February 19.

The Farmers Union Elevator at Portis, nine miles north of Osborne, Kan., burned March 1 with considerable loss. A fire truck going to the fire overturned and injured two of the firemen.

The Fowler Equity Exchange has started work on the erection of six large storage tanks at Fowler, Kan., which will enlarge its elevator capacity to 250,000 bushels.

The Southwest Kansas Wheat Growers Association, which has control of more than 100 country elevators, was organized at Dodge City, Kan., March 7, according to E. H. Fisher of Elkhart, president. The company has applied for a charter and expects

to have a large membership in Kansas and Colorado. The directors alone farm more than 60,000 acres of wheat and are among the outstanding wheat raisers in the Southwest.

Col. N. P. Simonds, 85 years old, founder of the Simonds Grain Company which later became the present Simonds-Shields-Lonsdale Grain Company, died February 28 in Long Beach, Calif. Col. Simonds was an alderman here in the nineties. He had lived in Long Beach since his retirement from the grain business in 1909 and recently had been living in Altadena, near Los Angeles. Mrs. Simonds died last December. The grain company that still bears his name was founded by Colonel Simonds in 1884 in the Armour Building at Fifth and Delaware Streets, then the board of trade location. He followed its expansion carefully until he retired in 1909.

Paris J. Keyes, for many years a member of the Kansas City Board of Trade and prominent in grain circles here, died at Manitou, Colo., last month. He retired about four years ago because of ill health. He died of apoplexy. Burial was February 22 at Richmond, Mo.

The Kansas State grain inspection and weighing department returned to the fees in effect before October 1 last year on March 1. These are \$1 per car load for inspections and \$1 for weighing in and out of elevators and warehouses.

B. Bassily, senior inspector of the co-operative section of the ministry of agriculture of Egypt at Cairo, was a Kansas City Board of Trade visitor February 24. Mr. Bassily was making a study of co-operative marketing in this country, as well as agricultural development.

"Egypt is attempting to increase wheat acreage and reduce cotton acreage," he said. "The country at present does not raise enough wheat to satisfy home requirements." Mr. Bassily went to Chicago from here and thence to Winnipeg where he made a study of the Canadian pool's marketing machinery.

William G. Kellogg, general manager and second vice-president of the Farmers' National Grain Corporation, became a member of the Kansas City Board of Trade March 6 by purchasing the membership of Harry Dwyer for \$7,500 plus a \$500 transfer fee. Purchase of the membership, traders believe, indicates an attitude on the farm board's part for closer co-operation with grain exchanges. Dwyer has not been active on the exchange here for two years. He formerly was associated with the Uhlmann Grain Company.

Mrs. Linda S. Hall, wife of Herbert F. Hall, president of the Hall-Baker Grain Company, recently made the first large endowment of St. Luke's Hospital here, a \$250,000 fund toward restoring children to health and use of limb. It is the largest gift for any specific purpose ever made to any Kansas City hospital.

Merle C. Taylor, president of the M. C. Taylor Company, was host, February 14, at a dinner of 40 men at the Kansas City Athletic Club. Among those who spoke were Van Roy Miller, president of the Nutrina Mills; S. H. Hale, president of the Gleaner Combine Harvester Corporation; W. T. Hamilton, Indianapolis, Iowa, president of the United Grocers Company of Iowa; Ross Eldridge, vice-president of the Rudy-Patrick Seed Company.

J. F. Jarrell, agricultural development manager of the Santa Fe Railroad, in his report of agricultural conditions in Kansas as of March 1, said that Kansas not only has the largest wheat acreage on record "but indications are there will be less abandonment than usual." Kansas farmers last fall planted 12,700,000 acres to wheat, an increase of 640,000 acres over that of the previous year. The average abandonment for the last five-year period was 13.5 per cent. The average production for the last five-year period was 13 bushels an acre.

R. A. Jeanneret, president of the Kansas City Board of Trade, took issue with Alexander Legge, chairman of the farm board, last month as to the effect of any attempt to increase the price of wheat. Mr. Legge had said that "if we try to raise the price of wheat now through the stabilization corporation, \$4 out of every \$8 would go to the private dealers."

"How this ratio was arrived at is difficult to perceive," Mr. Jeanneret said, "but granting that it were true, it necessarily must follow that the private dealer already must have gained an advantage of the same ratio as between the pegged price of \$1.15 for No. 1 Hard wheat and the commercial price of approximately \$1 a bushel. So, following out that line of reasoning, the private owners of stocks of wheat in the Kansas City market should be able to dispose of their wheat at \$1.07½ a bushel."

"As a representative of the Kansas City private dealers," Mr. Jeanneret went on, "I think it only

proper to make it known to the general public that this is not the case. The truth of the matter is—No. 1 Hard wheat was offered for sale by private dealers in this market yesterday at \$1.00½ a bushel, and dealers in the Omaha market were offering No. 1 Hard wheat at 99¼ cents, basis Omaha.

"The wheat being held in storage in this market is protected against price fluctuation by the sale of the Kansas City May future, and the holder of this wheat necessarily will base his price from time to time on the future market, so it makes no difference whatever to the private owner of wheat whether the market declines 20 cents a bushel or advances 20 cents a bushel—his margin of profit will be the same in either event."

Members of the Board of Directors of the Kansas-Colorado Regional Wheat Marketing Association met at Manhattan, March 6, to consider plans for opening up a drive for new membership in the farm board's new wheat sales agency. S. R. McKelvie of Nebraska, wheat member of the farm board, met with the committee. Mr. McKelvie told the regional officials that the loan basis to farmers to hold wheat was \$1.13 Kansas City for No. 2, with freight rate to Kansas City and a five or six-cent handling charge deducted. The farmer must have the wheat in a warehouse and obtain an initial advance from some other agency, such as the intermediate credit banks. Farm board funds then would be supplied up to the established basis. One per cent handling charge would probably be taken by both national and regional associations with the local association also taking out a handling charge. Any profit obtained on handling, however, would later be returned to the grower in patronage dividends.

The Federal Farm Board, members of farm organization, and independent farmers and grain dealers from boards of trade in the Southwest celebrated the dedication of the largest grain elevator in the interior, February 15, at Dodge City. More than 600 attended the opening of the new 500,000-bushel Dodge City Terminal Elevator, owned and operated by C. C. Isely. Mr. Isely stressed the importance of warehousing facilities for the interior and pointed out the important function which such elevator may serve as an intermediary between Kansas City and Gulf ports.

LOUISVILLE

A. W. WILLIAMS - CORRESPONDENT

KENTUCKY business men will heave a sigh of relief when the present session of the legislature is over and things have again calmed down. It has been a radical legislative session marked by many ripper bills, which have destroyed long established systems. Then there has been enacted a retail gross sales tax, in the guise of an aid to the small merchant in fighting the chain store, but which places a tax on every retailer of every commodity with heavy penalties for failure to correctly report sales and pay the tax. If the retailer looses money he pays the tax just the same as it is not a profits tax. This tax calls for 1/20 of 1 per cent, or \$50 per \$100,000 for the first \$400,000 of business done. The fifth \$100,000 carries 2/20 and the rate advances by each \$100,000 to 1 per cent on gross sales of \$1,000,000 or over. The second million dollars carries a tax of \$10,000, as does each succeeding million.

The bill went over by big majorities in both houses and the signature of the governor is merely a matter of form, as he advocated tax measures to curb chain stores in a talk before the legislature, just after its opening. The bakers, retail grocers and small merchants were strong backers of the bill, in the belief that it would curb chain operations and in view of the fact that they are allowed credits on special taxes now paid, which will offset their sales tax in many instances. The special taxes are on cigarettes, oleo, soft drinks, and some other items.

Another dangerous bill provides for a state income tax law, carrying taxes for the individual, firm, and corporation. It stands a fair chance of becoming a law.

Some good legislation is progressing, including a pure seed law, which necessary appropriations for its enforcement by the State Department of Agriculture, and College of Agriculture, University of Kentucky.

Usually open weather in the latter half of February has resulted in early grass in Kentucky and a resulting drop in demand for sheep feed and dairy feeds. Farm work has progressed and much planting has been done, seeds being in good demand. The wheat crop has come through the winter well. The acreage was larger than usual, due to a long

easy fall. Demand for seed corn is good and increasing because of much bad corn this past season and lack of good seed stock on the farm. Seed corn is selling at from \$2 to \$2.50 a bushel or more. Local grain elevators report light grain holdings now as a result of wheat having moved to private storage of the milling companies and there being but normal supplies of corn, oats, rye, etc., in hand.

Bills to prevent horse racing in Kentucky, which would have materially affected the great race horse breeding industry, in central and western Kentucky, were killed early in the sessions, and the industry is safe for another two years.

Distilling operations in Kentucky this winter accounted for a fair amount of grain. However, the season is about over. The big Wathen plant in Louisville finished its run on February 22, after producing 160 barrels of whisky daily for some weeks. The Stitzel plant will run for some weeks yet, as it is producing for several companies, and has but small capacity, of about 60 barrels daily. Another plant in Frankfort, Ky., and one in Owensboro, are operating.

Grain demand has been relatively quiet, according to Ed Scherer, Bingham Hewett Grain Company, Louisville, who stated that there was but small activity just now. Corn continues poor in quality and it is all being dried. Good corn is a little better, but bad corn never gets better and generally worse. Drying plants have been kept in steady operation over the fall and winter. Hay demand has been fair. Receipts are now light because farmers are busy with spring work. Timothy has been the best item and mixed hay is fair. Heavy Clover Mixed, Clover, and Alfalfa are dull. Feeds have been quite draggy and lower in price, with millfeeds generally selling at around \$28 to \$29 in bran, mixed feed and brown middlings. Gray shorts and red dog have been dull. Hominy feed and corn feed meal have been very draggy. Cottonseed meal has also been off.

Frank M. Flowers, of Oscar Farmers Sons, has been away for several weeks on account of a severe illness and is not expected back until mid-or late spring.

A rodent-exterminating drive has been launched in Louisville which may have some good results. Not much effort in this direction has been made in years and as a result of rapid multiplication the city is now full of rodents which destroy much foodstuff and which make it virtually impossible to raise chickens in the city.

Grain men of Louisville discussed with interest a new prohibition development here on March 7, when J. N. White, president of the Louisville Coopers Company, was held by the United States Commissioner, to the Federal Grand Jury, under bond of \$3,000 along with a downstate dealer in kegs, for alleged conspiracy to defeat the prohibition law, or violate it, claiming that the Louisville company had manufactured and sold the kegs. These kegs were openly sold, with the manufacturer's name stenciled on the end of each keg, and also a typewritten card was found bearing the name of the buyer, this card being attached to each keg, of a quantity of filled kegs found in a moonshiner's cache in Western Kentucky.

The impression is that it is not illegal to manufacture and ship such kegs, as kegs are not a part of the production or transportation of liquor, but a container used subsequent to its production.

If a man can be arrested on conspiracy charges for furnishing kegs to a merchant, who in turn sells to a third party, it is hard to see how any one is safe that supplies any sugar, malt, grain, yeast, or other product that may be used in production, contend many grain men.

There have been some dealers arrested recently for sales of meal, sugar and other products, but those are products going into production, and the question involved is whether or not the dealer sold them knowing they would be used in production of illicit material.

Lee S. Irving, Chief Grain Inspector, Louisville Board of Trade Grain Inspection Department, in a recent statement regarding movements and conditions said:

"In checking over the receipts and shipments here during the months of January and February, 1930, and for a like period in 1929, we find an increase in the receipts of about 15 per cent over 1929 and an increase in the shipments of about 28 per cent over 1929.

"We find the condition as regards heavily and unevenly loaded cars, very much improved and as a result the inspections have been more satisfactory all around."

Mr. Irving added that receipts of wheat at the present time are a little off on account of the flour mills removing their wheat from public storage to their own mills or elevators.

NEW YORK

C. K. TRAFTON - CORRESPONDENT

Richard F. Uhlmann, secretary and treasurer of the Uhlmann Grain Company on the Chicago Board of Trade, was elected to membership in the New York Produce Exchange at the early March meeting of the board of managers.

Reports regarding the securities market on the produce exchange are still very satisfactory. The volume of business during February was 2,236,221 shares, compared with 1,934,415 during January and with 602,150 during February, 1929. The number of securities listed for trading has been increasing steadily and now amounts to over 750, while between 150 and 160 members have qualified to take part in the trading.

Emanuel F. Rosenbaum, Jr., of the Rosenbaum Grain Corporation on the Chicago Board of Trade, is an applicant for membership in the produce exchange.

As "the big night"—March 28—draws near, members of the produce exchange bowling league are displaying increased optimism regarding the outcome of their fourth annual show and dance which will be given at the Hotel Astor. Over 30 principals, chorus, etc., have been rehearsing diligently for the presentation of the Broadway comedy, "Seven Chances," with its added musical features and the committee and coaches in charge expect that the performance will surpass its three predecessors in every way. It has been announced that the music for dancing after the show will be furnished by the world-famous Meyer Davis Orchestra.

Barnett Faroll of Faroll Bros., well-known commission merchants on the Chicago Board of Trade, stopped over for a short stay on the produce exchange late in February while on his way home from a holiday trip to Atlantic City.

Raymond F. Kiltbau, flour merchant, who recently resigned his associate membership in the exchange, has been elected to regular membership.

Trading in tickets of membership in the produce exchange was very quiet during the past month and it is difficult to give positive quotations as the market is entirely a trading affair with buyers and sellers expressing ideas about \$1,000 apart. According to unconfirmed rumors, a regular ticket has sold as high as \$10,200, but at this time they could probably be bought for \$9,000 and there is no indication of buying interest above \$8,000. Likewise, associate tickets are possibly available at \$6,000 with possible buyers at \$5,000.

Henry Ziner, for a number of years associated with M. D. Moore, freight broker on the produce exchange, who severed that connection last month, is now connected with another old freight brokerage house, Caldwell & Co., Inc. After resigning his regular membership in exchange he was elected to associate membership.

The great amount of extra work entailed by preparations for their big annual show curtailed the attendance of members of the produce exchange bowling league at their regular Thursday meetings during the past month. Nevertheless, a number of excellent scores were recorded. Prizes for actual high scores were won as follows: Trafton, 234-213; Frey, 219; Therrien, 219. Best scores with handicaps were: Chudleigh, 260; Brendel, 248; Therrien, 244; Trafton, 231. Other "double-century" games were: Frey, 217-200; Trafton, 211-200; Terry, 210, Dahl, 208.

Two representatives of firms engaged in the marketing of securities of various kinds, wishing to participate in the growing business in the securities market on the produce exchange, were elected to membership early this month, namely: Arthur W. Levy of I. D. Noll & Co. and Frank J. Patrick of Peter R. Lawson & Co.

Edward Hymers, a member of the well-known firm of Jackson Bros., Boesel & Co., on the Chicago Board of Trade, paid a brief visit early in March to his many friends in the grain market on the produce exchange.

William Beatty, president of the New York Produce Exchange, has announced that the steady growth of the securities market of the exchange has necessitated adding further to its personnel, and this has been accomplished by engaging the services of Herman H. Petry, formerly an assistant sec-

retary of the New York Stock Exchange and recognized throughout Wall Street as an authority on securities trading. Mr. Petry's experience extends over a period of more than 25 years, and he is expected to be very helpful in the supervision and the further advancement of the exchange's securities market.

Mr. Beatty further stated that in the past six months the demands of the securities market made it necessary to increase the trading facilities by the installation of an additional trading post. The force of the listing department has been augmented to further facilitate the examination and listing of issues.

In Mr. Beatty's opinion, with the advent of spring, we have seen the worst as to any business depression, because weather conditions from now on will enable the extensive expansion programs of railroads, utilities, and manufacturing industries; also Government construction, to be carried out and thus add to the employment of many workers in various walks of life. Mr. Beatty believes in the present value of sound investments and does not look for any marked decline from present levels; also owing to the lower interest rates for money the trading in securities will continue to increase through the investing public entering the market, and will in future be on a sounder foundation.

Alfred D. Davis of the National Freight Company, freight contractors, was among the applicants admitted to membership in the produce exchange at the early March meeting of the board of managers.

Members of the exchange, and especially the veterans in the grain trade, were deeply pained to learn that Nicholas J. Campion had passed away at the age of 58. Mr. Campion had been an active and popular figure in the trade since boyhood, having been connected for many years with the old firm of Otto E. Lohrke & Co. and recently with Knight & Co.

According to an obituary notice posted on the produce exchange, David B. Dearborn, dean of the local ship brokers, passed away on February 19 at the age of 97. Mr. Dearborn, who was senior partner of the firm bearing his name, rose to prominence in shipping circles in the days when the American clipper dominated the seas. One of his vessels, the bark *Griffon*, was among the first to be sunk at the outbreak of the Civil War. Coming to New York in 1849 from his father's home in East Pittston, Maine, he started his business in 1852 and was active in it until 1921. In 1851 he was purser on the first steamship to pass through the Strait of Magellan. This trip took him to California in the heyday of the gold seekers, whose activities and those of the vigilance committee he was fond of recalling.

He was one of the organizers and was the oldest member of the New York Maritime Exchange, as well as of the New York State Chamber of Commerce, and of the Montauk lodge of Masons, in Brooklyn. He was an honorary member of the Marine Society.

BUFFALO

ELMER M. HILL - CORRESPONDENT

CUSTOMS laws now enforced in Buffalo, particularly those relating Canadian grain movements through terminal elevators along the waterfront, are being subjected to rigid scrutiny in Washington, it was announced by Harry W. Smith, deputy collector at Buffalo. Attention again is being focused upon charges of irregularity in the handling of Canadian grain at Buffalo elevators but no evidence of a specific character has been revealed. Fred A. Bradley, collector of customs with supervision over the handling of Canadian grain in terminal elevators, says if there is any irregularity, the Government can refuse to pay the drawback, an enormous loss to the shipper, who pays the 42-cent duty. Another phase of the law is that governing payment of fines for shortages. It was pointed out this phase of customs enforcement is unjust to millers of grain. Mr. Bradley believes there should be some changes in the customs laws to correct any injustice which may prevail. He says prevailing laws are not perfect and it is the purpose of the department to review the entire system critically and establish rules and regulations which will tend to eliminate any possibility of irregularity and unfairness.

Speaking at the banquet of the Transportation Club, Harry W. Smith, deputy collector of customs at Buffalo, touched upon allegations of irregularity in the handling of Canadian grain through terminal elevators. He explained that grain

shipped to Buffalo from Canada is policed so rigidly that there is little opportunity for it to be handled other than under existing laws. He said constant and continuous supervision is maintained. Going fully into the methods of law enforcement, Mr. Smith said, "If the Government is not notified within 48 hours after Canadian grain arrives in the United States, the Government takes physical possession of the shipment. It is placed in a bonded warehouse where it can be held for one year and then sold by the Government. Grain is not an inflexible commodity. There is bound to be shortages and overages in shipment after they have gone through the elevator. Normally there is an average of 30 pounds on every 60,000 pounds of grain. When it is handled in the millions of bushels, this may amount to a considerable quantity. Undoubtedly there should be some other method to balance elevator shortages and overages to the satisfaction of all parties concerned."

W. H. Settle, of Indianapolis, chairman of the Farmers National Grain Corporation, speaking at the seventh annual convention of the Producers Cooperative Commission Association in Buffalo, said there has been a marked trend since the war away from individual and moderate scale business and in the direction of great combinations and mergers. He said this condition exists in the grain and elevator business the same as in other industries. All officers and directors of the association were unanimously re-elected. They are: Elmer A. Beamer of Blissfield, Mich., president; C. C. Howenstine, of Hicksville, Ohio, vice president; Lee R. Highlen, of Liberty Center, Ind., secretary and treasurer. The directors are: J. B. Cummins, of Portland, Ind.; John O'Mealy, of Hudson, Mich.; Edward Bartholomew, of Goshen, Ind.; P. M. Granger, of Charlotte, Mich.; W. W. Hawley, Jr. of Batavia; and R. O. Smith, of Columbus, Ohio.

William H. Almy, department manager in charge of customs and insurance for Spencer Kellogg & Sons, Inc., of Buffalo, grain elevator operators, died early this month after an illness of several months. He was 82 years old and had been a resident of Buffalo for 53 years. He was born in Norwich, Conn. Mr. Almy is survived by his widow.

The New York State Hay & Grain Dealers Association will hold its annual convention at Syracuse during August. Grain dealers from all parts of the Empire state, including a large delegation of grain and hay merchants from Buffalo, will attend the gathering.

Fire last month, believed to have started from gasoline on the floor of the engine room, resulted in \$250,000 damage to the new \$6,000,000 grain elevator of the Canadian Government under construction at Prescott, Ont. The foundation for the elevator had been completed and forms were in place for the cement grain tubes. The wooden forms, the cement shed, and the roof of the mixing shed were destroyed by fire. Contractors explained there should be no serious delay in the completion of the structure as the result of the fire. The damage was fully covered by insurance.

A large delegation of members of the Buffalo Corn Exchange participated in the annual convention of the Eastern Federation of Feed Merchants held in Binghamton. Among those who went from Buffalo were Frank C. Greutker, Harry C. Ellwood, Edward N. Kain, H. C. Witmer, Lewis W. Abbott, Edward A. Schwab, Leland S. Montgomery, Joseph O. Doty, James E. Musgraf, Howard P. Mitchell, Frank J. Young, Virgil L. Todd, Elmer J. Koehnlein, James H. Gray, Lionel True, Basil Burns, Fred J. Pierce, William J. McKibbin, Lloyd Greer, Harry C. Shaw, Fred H. Kruger, Otto Auerbach, Joseph F. Lepine, and Alfred J. Curtis.

Capital expenditures aggregating between \$3,000,000 and \$4,000,000 will be undertaken this year by the Canada Steamship Lines, Inc. The major contract is for the completion of the grain elevator at Kingston, Ont., through a subsidiary, the Kingston Elevator Company, involving an expenditure of approximately \$2,500,000. The elevator will be ready for the opening of the new Welland Ship Canal.

C. C. Lewis, president of the Lewis Grain Company, and head of the Buffalo Flour Club, was one of the speakers at a meeting of the latter organization in the Dutch Grill of the Hotel Buffalo at which there was a discussion of the project of withdrawing from the National Flour Club.

Dudley M. Irwin, prominent figure in Buffalo grain circles and Mrs. Irwin recently spent a brief vacation in Richmond, Va.

Practically all of the Great Lakes grain carriers which held winter storage cargoes at Buffalo have been unloaded and vessel owners now are waiting for the opening of the 1930 season which is expected to get under way some time within the next

three or four weeks, providing ice conditions are favorable. There has been a steady movement of grain from terminal elevators to the Atlantic Seaboard during the past month and local elevators are reported to be in good condition to receive the first cargoes of the season from grain shipping ports on the upper lakes.

Godfrey Morgan, manager of the Kellogg elevator, has been elected president of the Hook & Axe Club of the chamber of commerce at the annual meeting of this social organization in Hotel Statler. Mr. Morgan succeeds Henry Roblin, who was elected a director of the club.

F. Brennon & Son, Inc., is a new Buffalo corporation, capitalized at \$50,000, to engage in the grain and hay business. Members of the firm are Fred Brennon, Fred D. Brennon, and Warren B. Wilkes of Buffalo.

No ice fields are reported in Lake Erie over the western and central portions but the United States Department of Agriculture reported in its ice survey this month that extensive fields exist from Erie east to Buffalo. Ice was reported to be running freely out of Lake St. Clair and the Detroit River is open to Lake Erie. The average thickness of ice in the Duluth-Superior harbors was estimated at 28 inches with fields in Lake Superior extending out 16 miles beyond Two Harbors. At Port Arthur, the ice was from 12 to 30 inches thick with the ice in St. Mary's River solid to Detour. No ice fields were reported in Lake Ontario on the Canadian grain route to Montreal except at the extreme east end with open water showing in the St. Lawrence River.

GRAIN NEWS FROM BOSTON

By L. C. BREED

The Fitchburg Farmers Feed & Supply Corporation, Fitchburg, Mass., has been incorporated. The capital stock is \$95,000, 9,500 shares at \$10 each. Clarence R. Bachelier is president and treasurer.

Frank W. Foye Company, Lowell, Mass., has been incorporated under the laws of Massachusetts to deal in flour, etc. The capital stock is \$50,000. Frank W. Foye is president and treasurer; William Walker is vice-president.

Wallace E. Bachelier, flour handler, during his illness which confined him at his home in Melrose, was sent a tribute of flowers by the Boston Grain & Flour Exchange.

The Berkshire Flour & Grain Company is creditor to the amount of \$2,031 in the bankruptcy case of Christopher I. Bigley, baker, Pittsfield, Mass. His liabilities are listed as \$30,144. Assets totaled \$47,670.

Arnold J. Ryan, Lowell, Mass., grain, flour and feed operator with liabilities of \$31,227 and assets of \$2,136 filed a voluntary petition in bankruptcy recently.

George F. Nash, Boston flour and feed broker, is recovering from an illness that kept him at home for about a fortnight.

F. J. Ludwig of Charles M. Cox Company, has been spending a vacation in Florida.

In the bankruptcy proceedings in the case of Roderic MacDonald, grain dealer, a first and final dividend of 5 per cent has been declared on all claims proved and allowed in the District Court in Boston. Notice of the dividend was issued by Charles C. Cabot, referee in bankruptcy. Mr. MacDonald was formerly a member of the Boston Grain & Flour Exchange.

H. P. Schall, of John W. Eshelman & Son, feed manufacturers, Lancaster, Pa., who recently applied for associate membership in the Boston Grain & Flour Exchange, was duly elected.

In his official report at the annual meeting of the Boston Grain & Flour Exchange, held last month, Albert K. Tapper, the retiring president, stated that the fifth year of the exchange had been successful financially. The full active membership is now 200. The number of associate members is 48.

The Horvitz Grain Company, Inc., of New Bedford, Mass., with a claim of \$411, and others, have petitioned Augustus Corcora of Fall River, Mass., into bankruptcy.

John D. Zink, general manager of the Eastern States Farmers Exchange of Springfield, Mass., recently resigned. Quentin Reynolds has been named for the position. The exchange has been doing a business of \$12,000,000 annually in its sales. It operates a \$1,000,000 feed mill. The customers

total more than 30,000 in New England and the Middle States. Mr. Reynolds has been on the staff of the exchange since 1923.

John D. Talbot, assistant secretary of the Boston Curb Exchange, has been elected an active member of the Boston Grain & Flour Exchange.

The American Flour Company was a tenant of the freight shed of the Boston & Maine Railroad at Charlestown, that was partially destroyed by fire recently, with an estimated damage of \$10,000. Some loaded cars on a siding were switched to a track away from the shed.

The Co-operative Union of Fitchburg, Mass., has been granted a charter under the laws of Massachusetts, to deal in farm and dairy produce, grain, feed, etc., and to establish and operate grain elevators, etc.

Boston seed dealers say that trade for the coming season is opening up earlier than usual, and the outlook for business is considered to be favorable. A feature of the trade is the active demand for grass seed for lawns and golf courses. There does not seem to be any trouble in obtaining ample supplies of seed from the West.

Boston wholesale grain dealers state that an average business for the month of February proved to be the case last month, though it was not a steady run owing to fluctuations in prices. A lull would be followed by extra activity which helped out the volume of business for the month. The feed department of their trade, however, was unfavorably affected by the mild weather that prevailed to a considerable extent. The decline in prices caused buyers to buy in a very cautious manner. Toward the end of the month a cargo of mill feed arrived from the Argentine republic and as a result prices declined further. There has been a steady demand for chicken wheat.

The receipts of hay at Boston during the month of February were 175 cars. Straw 3 cars. The continuance of small receipts has caused prices to rule steady and firm. An unusually large quantity of hay was exported to England during the month.

The stocks of grain in regular elevators at Boston, as of early March, were as follows: Wheat, 1,763,194 bushels; oats, 7,443 bushels; rye, 1,817 bushels.

The receipts of grain at Boston during the month of February, as tabulated by the Boston Grain & Flour Exchange, were as follows: Wheat, 113,400 bushels; oats, 36,275 bushels; rye, 1,225 bushels; barley, 100 bushels; millfeed, 1,250 tons; cornmeal, 1,590 barrels; oat meal, 19,744 cases and 525 sacks.

During February the following export shipments were made: Wheat to Norway 26,051 bushels and 44,800 bushels; London, 17,960 bushels; hay to Liverpool, 3,331 bales; London, 5,389 bales; oatmeal, London, 1,375 cases.

Among the visitors to the exchange during the month of February, outside of New England, were the following: F. W. Payne, New York; Max Cohen, Buffalo, N. Y.; T. Marshall Holt, Reading, Pa.; M. N. Mennel, Toledo, Ohio; M. Hillyer, Cedar Rapids, Iowa.

Correction: In the February issue, the report of the annual meeting of the New Seed Dealers Association, through a typographical error, read New England Feed Dealers Association.

OFFICIAL GRAIN MART REVIEW

By G. A. COLLIER

Market News Service, Bureau of Agricultural Economics, United States Department of Agriculture

While domestic wheat markets have fluctuated sharply during the past month there has been no great change in the underlying situation. The sharp decline which carried wheat prices to the lowest point of the season may be attributed principally to the continued slow European demand for wheat, which has been reflected in a reduction of nearly 200,000,000 bushels in world shipments for the season to date compared with the corresponding period last year. Feed grains have weakened with wheat but a continued good demand for the moderate offerings has been a strengthening factor, largely offsetting the influence of declining wheat prices. Rye has fluctuated mostly with wheat but fairly large commercial stocks, together with lack of export inquiry, have been additional weakening factors.

The reduced demand for foreign wheat in the

principal importing countries continues to be the dominating influence in the wheat market. Direct shipments to Europe this season have totaled only about 265,000,000 bushels compared with about 384,000,000 bushels shipped during the corresponding period last season. Shipments to ex-European countries have totaled only about 77,000,000 bushels compared with 114,000,000 bushels last season. Total world shipments this season have amounted to only about 376,000,000 bushels to the first of March compared with approximately 570,000,000 bushels for the ing period last year. Australian shipments on the countries have exported around 16,000,000 bushels since the first of August compared with only 2,000,000 bushels shipped out during the corresponding period last year. Australian shipments on the other hand have been only about half as large as last season and have totaled only about 19,000,000 bushels since the first of January compared with 42,000,000 bushels exported from January to March last season. Argentina continues to ship wheat in moderate volume but exports since the first of January have totaled only about 27,000,000 bushels compared with around 62,000,000 bushels shipped out during the corresponding period of last year.

The greatest decrease, however, has been in North American shipments, which since the first of August have totaled only 184,000,000 bushels, or about half as much as during the corresponding time last year when overseas shipments totaled about 368,000,000 bushels for that period.

HEAVY TERMINAL STOCKS

The reduced exports are largely responsible for the accumulation of large stocks in North American markets. Approximately 370,000,000 bushels of wheat are now in store in United States and Canadian markets compared with about 330,000,000 bushels a year ago. Total stocks of wheat in North America are still smaller than at this time last season but the decrease in the crop has been largely offset by the reduction in exports. Farm stocks in the United States at the first of March were about 22,000,000 bushels smaller than a year ago and totaled 129,000,000 bushels. This decrease in farm stocks partially offsets the increase in the stocks in store at terminals. No official report is yet available as to the amount of wheat in store in country mills and elevators but trade reports indicate slightly larger stocks in these positions than a year ago.

Unless there is a material increase in exports during the next three months relatively large stocks will again be carried over into the new crop year July 1. No official estimate is available relative to Canadian farm stocks, but based upon supplies at the beginning of the season and exports to date, farm stocks in that country appear to be around 55,000,000 bushels below those a year ago.

Stocks of native wheat in Europe are diminishing, but offerings of these wheats are still fairly large and are restricting the demand for foreign wheats. Supplies in the Southern Hemisphere are only about half as large as at this time last season, principally because of the short Argentine crop. Based upon recent official estimates of production and trade reports of shipments to date and allowing about the usual amount for domestic requirements, only about 126,000,000 bushels of wheat remained for export in Argentina and Australia at the first of March. Trade estimates are somewhat in excess of this figure.

Argentine wheat continues to undersell wheat from other exporting countries outside of Europe in European markets. On March 7, 63-pound Rosafe Argentine wheat for March shipment was quoted in London at \$1.14½ compared with \$1.27 per bushel for No. 2 Manitoba from Canada. Native wheats in Europe are still being utilized extensively and in some countries milling regulations have been enacted or extended to reduce imports.

FOREIGN DUTIES A FACTOR

In German import duties have been increased to about 61½ cents per bushel on foreign wheat in order to increase the use of native wheat and rye in that country. While good milling native wheat was quoted at \$1.57½ at Hamburg March 7, United States wheat would have to sell at about 95½ cents

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at that market to be equivalent in price to local grain. Native milling wheat at Paris was quoted March 7, at \$1.34½ but with an import tariff of 53½ cents prevailing, United States wheat would have to sell at about 81 cents c. i. f. French ports to be equal in price to the native wheat. Export bids for United States No. 2 Hard Winter were around \$1.12 per bushel f.o.b. the Gulf and \$1.11½ f.o.b. New York on March 7, but these were below current prices and no sales were reported.

Some Pacific Coast wheat has recently been sold for export to the United Kingdom and to the Orient. No. 1 Soft and Western White wheat were quoted at Portland March 7, at \$1.10 with No. 1 Hard winter, Northern Spring and Western Red selling at \$1.07½ per bushel. No. 2 Hard Winter ordinary protein was quoted at Kansas City March 7, at \$1.03½-1.05 and No. 1 Dark Northern Spring at Minneapolis, with 12 per cent protein, at \$1.10-1.12 per bushel. Higher protein wheats were bringing some premiums over ordinary protein types.

Domestic mills are furnishing the best outlet for United States wheat since exports are comparatively small. During the month considerable wheat was taken on the basis of the loan values established by the farm board but at this writing (second week in March) prices are below this basis, and buying of wheat at the loan values has been discontinued. Spring wheat continues in relatively better demand than other classes of wheat although Soft Red Western wheat is being readily absorbed by southern and southeastern mills. Durum wheat continues in slow demand because of the lack of export inquiry for this class.

FEED GRAINS LOWER

Feed grain prices turned sharply downward in February, influenced by the sharp decline in wheat. Offerings at most markets, however, became smaller, while demand held fairly active. Markets turned somewhat firmer and prices regained a good part of the loss.

Remaining supplies of corn and oats on farms are well below those of last season. At the first of March, 989,000,000 bushels of corn remained on farms, according to the official estimate, which was the smallest supply at this date since 1925. Oats stocks on farms totaled 399,000,000 bushels, or nearly 100,000,000 bushels less than a year ago. Marketings of corn continue well below those for the corresponding period last season, while demand from industries, feeders, and shippers has been about sufficient to absorb current arrivals. Elevators have recently been more active buyers but market stocks have increased rather slowly and totaled less than 25,000,000 bushels at the first of March. This compares with nearly 37,000,000 bushels in store a year ago.

Notwithstanding the smaller supplies, corn is selling about 15 cents per bushel cheaper than at the corresponding time last season, reflecting the lower price level and the generally weak situation in the wheat market. On March 7, No. 3 Yellow corn was quoted at Chicago at 77½ cents, at Omaha at 72-73 cents, at Kansas City at 73½-75 cents, and at St. Louis at 78½-80 cents per bushel.

Oats continue in good demand with offerings of only moderate volume and just about equal to trade requirements. Market stocks are materially larger than a year ago and at the first of March totaled around 23,000,000 bushels compared with about 17,000,000 bushels in store March 1, 1939. This increase in market stocks, however, is much more than offset by the smaller supplies on farms.

The situation in the barley market has not changed materially since the last report. Malting barley continues in steady demand but offerings of this type are limited. Inquiry for feed barley continues rather dull. There is very little export demand for barley and United States exports have totaled only 18,500,000 bushels since the first of July, compared with nearly 49,000,000 bushel shipped out during this period last year. A large proportion of this season's shipments has been of California barley and exports of central western barley in recent months have been almost negligible.

Barley from Russia and Black Sea ports is underselling United States barley in European markets.

BALTIMORE—Reported by James B. Hessong, secretary of the chamber of commerce:

Receipts		Shipments	
1930	1929	1930	1929
Wheat, bus..	393,500	1,487,626	438,794
Corn, bus..	68,016	100,618	292,857
Oats, bus..	57,207	63,143	19,932
Barley, bus..	9,591	312,207	8,311
Rye, bus..	6,140	1,091	769,450
Hay, tons..	548	49	1
Flour, bbls..	71,199	71,105	5,943

CINCINNATI—Reported by J. A. Hallam, Chief inspector of the board of trade:

Receipts		Shipments	
1930	1929	1930	1929
Wheat, cars..	108	146	89
Corn, cars..	421	610	329
Oats, cars..	186	130	84
Barley, cars..	2	4	1
Rye, cars..	673	830	6
Hay, tons..			

CHICAGO—Reported by Lyman Hart, statistician of the board of trade:

Receipts		Shipments	
1930	1929	1930	1929
Wheat, bus..	505,000	1,971,000	1,054,000
Corn, bus..	7,928,000	10,868,000	3,329,000
Oats, bus..	1,334,000	2,320,000	1,617,000
Barley, bus..	416,000	915,000	320,000
Rye, bus..	18,000	159,000	24,000
Timothy Seed, lbs..	920,000	650,000	1,829,000
Clover Seed, lbs..	1,204,000	1,431,000	1,814,000
Other Grass Seed, lbs..	1,871,000	1,099,000	1,071,000
Flax Seed, bus..	19,000	64,000	1,000
Hay, tons..	8,033	7,608	1,044
Flour, bbls..	849,000	1,037,000	520,000

DENVER—Reported by H. G. Mundhenk, secretary of the grain exchange:

Receipts		Shipments	
1930	1929	1930	1929
Wheat, cars..	173	235	27
Corn, cars..	975	977	197
Oats, cars..	32	16	1
Barley, cars..	30	36	18
Rye, cars..	1	1	1
Grain Sorghums, cars..	5	3	
Beans, cars..	278	114	48
Hay, cars..	65	64	45

DULUTH—Reported by Charles F. MacDonald, secretary of the board of trade:

Receipts		Shipments	
1930	1929	1930	1929
Wheat, bus..	3,256,995	1,941,997	955,870
Corn, bus..	20,287	125,661	8,539
Oats, bus..	162,769	334,136	5,504
Barley, bus..	29,013	929,595	83,036
Rye, bus..	56,542	202,726	26,452
Flax Seed, bus..	4,507	9,146	22,106
Flour, bbls..			77,865

FORT WILLIAM, ONT.—Reported by E. A. Ursell, statistician of the board of grain commissioners:

Receipts		Shipments	
1930	1929	1930	1929
Wheat, bus..	1,832,233	2,918,433	223,545
Corn, bus..	2,601	4,652	3,995
Oats, bus..	111,552	648,882	365,693
Barley, bus..	212,117	492,610	60,244
Rye, bus..	132,040	141,897	8,700
Mixed Grain, bus..	11,940	36,455	10,220
Flax Seed, bus..	7,772	18,178	1,470

GALVESTON—Reported by George E. Edwardson, chief inspector of the cotton exchange and board of trade:

Receipts		Shipments	
1930	1929	1930	1929
Wheat, bus..		1,314,700	95,000
Corn, bus..			1,728,142
Barley, bus..			274,023
Kaffir Corn, bus..			272,123

HOUSTON—Reported by W. J. Peterson, chief grain inspector and weighmaster of the merchants' exchange:

Receipts		Shipments	
1930	1929	1930	1929
Wheat, bus..			152,000
Barley, bus..			75,000
Kaffir Corn, bus..			110,268

INDIANAPOLIS—Reported by William H. Howard, secretary of the board of trade:

Receipts		Shipments	
1930	1929	1930	1929
Wheat, bus..	167,000	183,000	337,000
Corn, bus..	2,768,000	2,836,840	1,834,000
Oats, bus..	968,000	1,256,000	958,000
Barley, bus..	1,500	8,000	4,500
Flour, bbls..	44,989	43,085	1,500

KANSAS CITY—Reported by W. R. Scott, secretary of the board of trade:

Receipts		Shipments	
1930	1929	1930	1929
Wheat, bus..	4,263,110	7,108,390	2,537,470
Corn, bus..	4,440,000	4,767,000	2,094,000
Oats, bus..	574,000	338,000	388,000
Barley, bus..	112,000	78,400	57,600
Rye, bus..	7,500	10,500	6,000
Hay, tons..	31,044	31,740	19,392
Flour, bbls..	56,550	79,625	674,500

MILWAUKEE—Reported by H. A. Plumb, secretary of the chamber of commerce:

Receipts		Shipments	
1930	1929	1930	1929
Wheat, bus..	64,680	142,560	22,500
Corn, bus..	1,830,760	1,266,840	508,410
Oats, bus..	190,260	478,800	500,700
Barley, bus..	331,450	792,000	297,360
Rye, bus..	5,600	56,700	11,680
Timothy Seed, lbs..	14,620	120,000	36,985
Clover Seed, lbs..	100,890	209,187	511,215
Flax Seed, bus..	11,440	5,720	1,430
Hay, tons..	192	336	9,910
Flour, bbls..	96,950	159,250	8,750

LOS ANGELES—Reported by M. D. Thiebaud, secretary of the grain exchange:

Receipts		Shipments	
1930	1929	1930	1929
Wheat, cars..	208	198	
Corn, cars..	319	224	
Oats, cars..	20	9	
Barley, cars..	148	76	
Rye, cars..		1	
Flour, bbls..	361	316	

MINNEAPOLIS—Reported by G. W. Maschke, statistician of the chamber of commerce:

Receipts		Shipments	
1930	1929	1930	1929
Wheat, bus..	6,937,160	6,950,440	2,342,890
Corn, bus..	1,233,360	749,580	2,864,390
Oats, bus..	934,350	1,801,360	849,940
Barley, bus..	1,474,520	1,570,990	1,360,910
Rye, bus..	386,690	550,850	1,209,150
Flax Seed, bus..	116,240	328,420	245,970
Hay, tons..	800	12,892	203
Flour, bbls..	17,722	20,674	922,480

NEW ORLEANS—Reported by S. P. Fears, chief grain inspector and weighmaster of the board of trade, Ltd.:

Receipts		Shipments	
1930	1929	1930	1929
Wheat, cars..	34	12	217,150
Corn, cars..	88	468	1,920,362
Oats, cars..	35	36	66,046
Barley, cars..		67	345,000
Rye, cars..	2	8	1,572
Grain Sorghums, cars..			

RECEIPTS ON RIVER BARGES

Receipts		Shipments	
1930	1929	1930	1929
Wheat, bus..	269,378	12,398	
Corn, bus..		702,486	
Barley, bus..		67,867	

NEW YORK CITY—Reported by H. Heinzer, statistician of the produce exchange:

Receipts		Shipments	
1930	1929	1930	1929
Wheat, bus..	2,301,000		2,646,000
Corn, bus..	132,000		
Oats, bus..	142,800		30,000
Barley, bus..	34,000		39,000
Rye, bus..	9,000		
Clover Seed, bus..			
Flax Seed, bus..	1,165		5,294 bags
Hay, tons..	25,000		
Flour, bbls..	1,829		
Flour, bbls..	1,094,749		900,000

OMAHA—Reported by F. P. Manchester, secretary of the grain exchange:

Receipts		Shipments	
1930	1929	1930	1929
Wheat, bus..	2,156,600	2,806,400	1,174,600
Corn, bus..	2,816,800	1,639,400	2,538,200
Oats, bus..	628,000	404,000	816,000
Barley, bus..	68,800	49,600	83,200
Rye, bus..	12,600	50,400	11,200

PEORIA—Reported by John R. Lofgren, secretary of the board of trade:

Receipts		Shipments	
1930	1929	1930	1929
Wheat, bus..	62,400	142,800	64,800
Corn, bus..	1,897,400	2,989,550	1,196,200
Oats, bus..	361,400	556,200	450,000
Barley, bus..	334,800	379,800	81,200
Rye, bus..	1,200		1,200
Mill Feed, tons..	26,000	29,000	45,090
Hay, tons..	30	1,400	10
Flour, bbls..	172,000	263,600	168,000

PHILADELPHIA—Reported by A. B. Clemmer, secretary of the commercial exchange:

Receipts		Shipments	
1930	1929	1930	1929
Wheat, bus..	45,905	1,291,067	183,965
Corn, bus..	49,082	310,379	439,405
Oats, bus..	96,402	91,424	28,977
Barley, bus..	2,438	328,740	389,644
Rye, bus..	3,233		
Flour, bbls..	178,577	149,536	9,159

PORTLAND, ORE.—Reported by F. W. Clark, manager of the merchants' exchange:

Receipts		Shipments	
1930	1929	1930	1929
Wheat, bus..	1,899,500		1,688,475
Corn, bus..	144,000		
Oats, bus..	87,400		1,562
Barley, bus..	13,750		

ST. LOUIS—Reported by C. B. Rader, secretary of the merchants' exchange:

Receipts		Shipments	
1930	1929	1930	1929
Wheat, bus..	1,558,200	3,790,000	1,185,800
Corn, bus..	3,192,400	4,645,000	1,118,600
Oats, bus..	1,590,600	2,248,400	1,636,800
Barley, bus..	52,800	158,400	27,200
Rye, bus..	5,200		1,300
Kaffir Corn, bus..			
Hay, tons..	63,600	123,600	43,200
Flour, bbls..	492,190	572,630	386,834

SAN FRANCISCO—Reported by James J. Sullivan, chief inspector of the chamber of commerce:

Receipts		Shipments	
1930	1929	1930	1929
Wheat, tons.	6,259	5,133	.....
Corn, tons....	2,509	2,057	.....
Oats, tons....	345	545	.....
Barley, tons..	34,976	41,016	.....
Beans, sacks	48,789	58,717	.....
Hay, tons....	2,292	2,381	.....

HAY, STRAW AND FEED

SCAB GRAIN AS FEED

"If harvested barley is seriously affected by scab, it is more profitable to feed it on the farm than to try to sell it at the ruinous discount grain dealers must impose." That is the advice given to farmers by the Federal Department of Agriculture in a recent release.

Scabbed barley is useless as hog feed. Hogs reject it, or, if they eat it, they suffer from digestive disturbances. Cattle and sheep, however, will relish a ration containing a large proportion of scabbed kernels and suffer no ill effects.

ALTERNATE METHODS FOR TANKAGE FEEDING

Tankage, the protein and mineral supplement consisting mainly of sterilized, powdered meat scraps, may be fed either of two ways.

The tankage may be exposed in an open box or self-feeder in the pen, or mixed with chop feed in a proportion of 5 to 10 per cent by weight. Many feeding trials have been conducted to determine the dollars-and-cents value of the meaty concentrate, and the results prove conclusively that it is an efficient pork producer.

A Canadian experiment, for example, involved a group of pigs fed barley and oats with another lot receiving 8 per cent tankage in addition to the grain. The feeding method was the same with both groups. The self-fed tests, with oats at 55 cents and barley at 75 cents per bushel, showed that the tankage which cost \$2.50 per 100 pounds, had an actual value of \$12.97 per hundredweight on the basis of grain saved.

YEAST FROM STRAW

A new method of extracting yeast from straw at a saving of approximately 90 per cent in cost has been discovered by V. Lund, a Stockholm, Sweden, chemical engineer.

The straw is boiled in natron lye until it becomes a gellatinous mass, after which it is neutralized with an acid. It is then washed, some sugar is added, and the composition is allowed to ferment. The entire process requires only eight hours.

FEED FOR "BATTERY WORK"

Hatcheries form an important part of trade possibilities in almost any feed dealer's territory. The specialized needs of this type of trade are brought out by M. H. Arndt, owner of a battery brooding establishment in which feed tests have been conducted. In Mr. Arndt's latest test with baby chick feed, 1,280 chicks were the subject of his experiments.

Twelve different feeds were used including home-mixed rations and commercial, branded mixtures. As originally reported to *Poultry Item*, there were one or more lots of 80 chicks on each feed used.

Summarizing his experiments, Mr. Arndt says: "The type of feed used in battery work is very well shown by the following examples. All other factors being equal, the feed represents the difference in this example. If the entire experiment of 1,280 chicks were operated on feed No. 3 (home mixed), we would then have sold 1,496 pounds of broilers at 31 cents a pound or \$463.76. Our chicks at 18 cents each would have cost us \$230.40 and our feed would then have cost us \$269.12 or a total direct cost of \$499.52. Inasmuch as we only sold \$463.76 worth of broilers, we would have lost \$35.76 on our direct costs.

"But as a direct opposite of this example, if we had used the commercial feed No. 5, we would have sold 3,552 pounds of broilers at 31 cents or \$1101.12. Our chicks would have cost us \$230.40 and we would have spent \$590.40 for feed or a total direct

cost of \$820.80. Deducting this from our sale of broilers, we would have had a profit of \$280.32 or a direct profit of 23½ cents on each bird raised. This represents about \$20 a week for labor or between \$1.50 and \$2 per hour, before interest on investment is deducted."

The baby chick season is on. The spring chickens that will be the *piece de resistance* on the national menu this spring and summer, are now in the making. With proper feed they will develop into a million or more chicken dinners.

An all-mash ration for chicks, developed after careful study at the University of Wisconsin, is as follows:

80 pounds ground Yellow corn
20 pounds standard wheat midds
5 pounds ground bone
5 pounds grit
1 pound salt
20 to 30 pounds dried buttermilk

Two pints of cod liver oil should be allowed for every 100 pounds of this mash when chicks do not receive direct sunlight.

A different chick ration, perfected at Cornell University, Ithaca, N. Y., is as follows:

GRAIN MIX (EIGHTH WEEK ON)
60 pounds cracked Yellow Corn
40 pounds wheat
MASH (36 to 48 HOURS to MATURITY)
45 pounds Yellow corn meal
10 pounds wheat bran
15 pounds wheat midds
10 pounds fine-ground heavy oats
10 pounds fine-ground meat scrap
2 pounds steamed bone meal
10 pounds dried milk products
½ pound salt

Oyster shell and grit should also be provided. A half pint of cod liver oil to 100 pounds of mash is recommended for chicks not receiving direct sunlight.

TIMOTHY MARKET FIRM; DAIRY HAYS IN DECLINE

Timothy hay markets ruled generally firm during the forepart of March, with offerings of good hay limited and trade reports indicating continued light receipts because of opening of farm work, according to the first March hay market review of the United States Bureau of Agricultural Economics. Alfalfa markets on the other hand continued weak. Pastures have improved in the South and on the Pacific Coast, and this, together with relatively low prices for dairy products, has curtailed demand for Alfalfa and Clover hays. Prairie markets were steady as a result of a better demand and prices advanced slightly at some points.

An active demand for good quality hay prevailed at eastern Timothy markets during the first of the month and all offerings sold readily at steady to slightly higher prices. Lower grades, however, which still constituted the bulk of the offerings, sold more slowly with terminals at Boston remaining heavily overstocked with this class of hay.

Receipts of Timothy at central western markets were relatively small. A good demand prevailed for all offerings at Pittsburgh, while increased inquiries from southern buyers strengthened the market at Cincinnati. The heavy shipments to the southern markets during January and February are now reported well cleaned up with indications of a continued good inquiry from that area. Light stocks are reported at Memphis where improved demand prevailed for all but the lower grades. The recent congestion was entirely cleared away at Atlanta and an excellent demand was reported for the light offerings in that market. Receipts at Birmingham on earlier purchases continued fairly heavy but there was a moderate demand and prices remained practically unchanged.

An increased competition for the small arrivals

was reported at Chicago. Stocks are comparatively light and prices were advanced about a dollar per ton as a result of an active inquiry. Spring work is restricting country movement and reports of country loadings indicate continued light receipts at that market. Scant supplies were also reported at St. Louis and prices were steady.

ALFALFA WEAK

Alfalfa markets were generally weak with offerings exceeding the slow inquiry at most points. Receipts at Kansas City were smaller than during recent weeks as a result of the interruption of baling and hauling by spring farm work but offerings were easily adequate for the limited demand. Stockyards were buying only in a small way, and mills were still being supplied principally from direct shipments. Shipping orders fell off materially and retail demand was of only moderate volume. Receipts were principally from the Platte River valley but an increased proportion was from Kansas and Colorado. Offerings consisted largely of medium to lower grade hay, which was difficult to sell.

The limited demand weakened the market at Omaha where receipts were principally of the lower grades, which were not wanted. Improved pastures and relatively low prices for dairy products were weakening factors in the Pacific Coast Alfalfa markets where demand has slackened and prices declined. Offerings at both San Francisco and Los Angeles were easily equal to market requirements but interior shippers in central western California were not pressing their supplies upon the market.

A better demand developed for Prairie hay during the week with fairly large amounts being taken to fill army contracts. Prices at Kansas City were advanced around 50 cents per ton and quotations held firm at other points. No. 2 Prairie was selling at about \$2 per ton under No. 1 at Kansas City and was quoted at \$9.50 to \$11, and No. 3 at \$7 to \$9 per ton.

500,000 TONS INCREASE IN MANUFACTURED FEED PREDICTED FOR 1930

By S. T. EDWARDS

When general business is dull from too much stock speculation or from other causes, the feed manufacturing business is good. This has been true to my personal knowledge for over 30 years.

I well remember one year when general business was very poor, but our poultry feed business (I was then a manufacturer) was the best we had had up to that time. People seemed to be short of money and resorted to every method possible to save and earn.

We started the idea of back yard poultry. It developed fast for us as well as for the other manufacturers. There was a profit for the dealer and also the consumer who had been buying eggs and poultry. They went to raising their own and the outcome was that the consumer had more eggs and more poultry to eat for less money than when they were buying at the store.

The business has changed in the past few years; today we have specialists in farming the same as we have in any other line. Due to science, system and lower cost per unit of production, more production and better quality, selling for less money, is now being secured.

To start with, we have the grain farmer who makes a business of certain grains best adapted to the soil of his farm. The next step, we find, is diversified farming and feeding, but the great bulk of the new development is going to specialists in animal and poultry feeding, such as dairy farmers, calf farmers, cattle farmers, hog farmers, turkey farmers, sheep farmers, duck farmers, rabbit farmers, fox farmers, etc. These people must have feeds that

will produce results. I have made formulas (as many as 30 different kinds) for over 110 feed manufacturers who, I estimate, are making between 800 and 1,000 cars (40,000 pounds each) of manufactured feed a day. I am asked almost daily for special formulae by the manufacturer who reports a demand for quality feeds made expressly for growth and production for all of these different kinds of animals and poultry.

This character of business is taking the farmer out of an old rut and into a new branch of business that he can understand. He can live where he has been living, only in far better and more comfortable surroundings. He takes what grain he raises on his truck to a nearby feed manufacturing plant or country elevator that handles feed, and exchanges or sells it and buys quality feeds that will fit his requirements. Gradually he buys more than his exchange amounts to as he develops real business in animal feeding.

Just remember, the day this business becomes general and the farmers awoken to the benefit and profit of being specialists in animal feeding, they will be doing a real business, asking nothing of anyone, and will—without question—be a big factor in our nation's business. A careful study of the kind, care and breeding of stock, coupled with high quality manufactured feeds, is the biggest factor in this successful development.

To have used the 500,000 tons increase in manufactured feed estimated for last year, there must have been between 50,000 and 100,000 farmers and feeders in 1929 who found they could do better and make more money by using high quality manufactured feed than by feeding whole grain. These are the men who are the new customers who have developed this business and are increasing it every year.

Manufactured feed made from ground, sweet products, properly milled and accurately mixed according to the best tested commercial formulae, when properly fed, will show the feeder from \$5 to \$10 a ton gain over the use of whole grain and home mixtures besides the cost of manufacture.

Some of the smartest men in the feed industry are the men who see this and are improving their plants, building new ones, cutting costs per ton by installing better machinery and getting ready for the feeder specialist. They are selling the good feeder as he learns of the benefit to be secured from quality feeds. Special attention is being given to high-class mixing machinery, especially percentage feeders, more than ever before. Part of this is due to education and part is due to the fact that a large number of feeds now contain specially prepared high concentrates like dried buttermilk, dried skimmed milk and several other elements that range in cost from \$100 to \$200 a ton against many of the standard articles used with them, such as bran middlings, ground oats, corn, etc., ranging in price around \$30 to \$40 a ton, so it is very important that mixing equipment be more accurate than heretofore. Improper equipment can easily lose the total cost of the most modern and accurate set of feeders in 30 days. We know of single feed manufacturers using over 2,000,000 pounds of dried buttermilk and dried skimmed milk in their manufactured feeds annually.

To back up the heading that the manufactured feed business for 1930 looks good and will come up to the 500,000 tons increase estimated, I am prepared to name the location and the owners who have, in the past 15 months, built or contracted to build, feed manufacturing plants, the total of which will have a yearly capacity of over 500,000 tons.

The capacities of each range from eight cars to 40 cars of 40,000 pounds a day, and from 12 to 25 different kinds of feed, and from four to 16 different articles correctly measured for each bag, including molasses under positive heat control.

My estimate of the cost of manufacture in these new plants, with the latest machinery, will range from 78 cents to \$1 a ton, running full for a 10 hour day.

Every feed manufacturer should grasp the opportunity offered in 1930 to build a bigger and bet-

ter business by manufacturing the very best feeds as economically as possible. The people that want quality, square dealing and a reasonable price are the customers to go after. Prove these three points and you will share in the 500,000 tons increase predicted for 1930.

MEAL PRICE WORKS LOWER

Cottonseed has worked steadily lower during the past week on the exchange at Memphis, Tenn., partially in sympathy with lower cotton, grains, oil and meal, but also on a continuation of gin selling into the futures and a steady stream of tenders which will probably total around 2,500 tons for March.

Seed so far has originated in the Memphis territory, and is representative of production in Tennessee, Alabama, Mississippi, and Arkansas. The official outturn on March tenders have indicated Tennessee seed at very close to the par basis, north Alabama and eastern Arkansas at premiums averaging around 4 per cent; Mississippi hills right at the par grade and Mississippi delta seed at premiums from 8 to 10 per cent.

Purchases by cash handlers are running to a good volume, and while pressure from this source has been only nominal, due to the fact that the actual has mostly been bought against open commitments in the futures, this interest is reported now pretty well taken care of and future purchases will, of course, be immediately reflected into the March or April options. Mills are on both sides of the market, but buyers have reduced their limits steadily.

Mill selling follows the futures reluctantly, but at the same time seems to be in sufficient volume each day to take care of dealers' requirements. The market seems to be unduly influenced by the day to day action of the grain and cotton markets, and the decline during the past week has been resultant more from a lack of buying interest than any selling pressure.

FEED PRICES IN NEW YORK

By C. K. TRAFTON

Prices for feeds in the New York market sustained additional declines of from 25 cents to \$4.50 per ton during the month under review, but nevertheless, business remained very slow, being far less than normal. It is quite evident that the low status of the dairying business generally is restricting the use of feedingstuffs materially and encouraging the feeding of the cheapest materials possible. Then, too, this long continued indifference among buyers is chargeable to the general depression in grain circles, one outstanding feature of which is the competition among the world's surplus—producers for the business to be obtained among importing countries.

Argentina continues especially aggressive in this respect and is still a dominating factor in our feed markets. In the meantime, all local, Buffalo, northwestern, and southwestern producers continue to offer, while Canadian pressure is still absent. Over 26,300 bags of bran arrived during the period from Argentina and the basis was lowered from \$28 to \$25 f.o.b. cars in New York duty-paid. As a consequence the domestic variety has been reduced from \$33 to \$30.50, while standard middlings are also \$2.50 lower at \$30, and Red Dog is \$1.50 lower at \$35.50.

Corn goods have developed a little more firmness latterly after being quite weak. A fair business was done with jobbers when certain mills reduced white hominy to \$33 and yellow to \$32.50, compared with \$35.60 for both kinds a month ago. It was quite apparent that such prices were too low and after the offerings had been absorbed the basis was advanced to \$33.85 for white and \$33.50 for yellow. However, offers at those levels are fairly free with virtually all producers offering. Linseed oil meal is nearly \$4.50 lower under increase pressure to sell because of the slack export demand for oilcake. However, business remains extremely slow at the basis; \$49.30 for 32 per cent and \$50.30 for 34 per cent.

Cottonseed oil meal continues lifeless at 25 to 75

cents decline, making the basis \$38.50 for 36 per cent, \$41.65 for 41 per cent, and \$44.25 for 43 per cent. Although offers of domestic beet pulp have disappeared the market is again over \$2 lower because of further pressure of imported goods. Arrivals from Europe totalled over 54,500 bags, making the total for three months close to 152,000.

NEW YORK HAY PRICES DRAG

Conditions in the New York hay market were unsatisfactory on the whole during the past month. At any rate, what little sign of improvement there may have been visible at one time was wholly a matter of sentiment among sellers as buyers at no time showed any disposition to "climb" for supplies and business as a rule remained very slow. Shortly after the previous review had been written, wintry weather caused a decrease in arrivals which ceased entirely at one time and as this caused some reduction in stocks the position appeared rather better and sellers were asking an advance of \$1 on No. 2 and No. 3 grades. On the other hand, the snow caused bad trucking conditions and checked consumption.

As a consequence buyers showed little interest and with supplies still ample they were generally able to do business virtually at their own price. Choice No. 1 hay in large bales was still lacking and retained its nominal value of \$27, but some so-called No. 1, picked up at \$25 and \$26, was considered extreme, for most of the arrivals although an occasional car of choice western sold higher.

Most of the demand, however, was for medium grades which sold between \$20 and \$22. No. 3 and poorer grades still ranged at \$14@21 for large bales, and \$13@20 for small, with the inside price quoted \$1 higher temporarily. First and second cutting Alfalfa generally ranged at \$22@26 with some western jobbing out at higher figures. Although country roads are generally reported as bad, which may restrict the movement somewhat, there is still plenty of hay on spot and in sight and as March is generally a slow month, no improvement in prices is expected.

FEEDSTUFFS MARKETS CONTINUE WEAK

Commercial feedstuff prices continued their downward trend at the principal distributing markets during the week ending March 12, with offerings generally in excess of the slow demand, states the weekly market review of the Federal Bureau of Agricultural Economics. The weakness in feed grains and milder weather in many areas which is tending to curtail requirements were also factors in the lowering of prices. Pastures are greening in most sections of the Mississippi River while range conditions are favorable throughout the great plains, the Rocky Mountain section, and Western States.

Remaining supplies of feed grains on farms are below those of last season. According to the official estimate as of March first 989,469,000 bushels of corn were on farms, the smallest stocks in that position since 1925. The proportion of the crop remaining on farms on March 1 is estimated at 37.7 per cent compared with 36.3 per cent last year and an average of 39 per cent on that date during the previous five years. Farm stocks of oats totaled 399,222,000 bushels, or the equivalent of 32.2 per cent of the crop produced in 1929. Farm stocks a year ago were 34.6 per cent of the considerably larger crop of 1928. Barley farm stocks were estimated at 73,280,000 bushels, or 23.9 per cent of the 1929 production compared with 97,167,000 bushels, or 27.2 per cent of the crop a year ago.

Wheat feeds: Prices of wheat feeds declined 25 cents to \$1.50 per ton during the past week. The situation appeared unusually weak at Kansas City where bran was 75 cents per ton lower and gray shorts \$1.50 lower than a week ago. Production of offal as indicated by flour production at the principal milling centers showed little change from last week but was heavier than a year ago. Outturn in the Northwest and at Buffalo appears heavier than at this time last year but less at southwestern and Pacific Coast mills.

Relatively heavier offerings by interior country

mills in the Northwest and the unsettled condition in grain markets was restricting trade for Spring wheat offal. About the only type of mill feed that has shown strength is pure bran for delivery on track at Minneapolis. Spring wheat feed situation at Buffalo was easy with liberal offerings and slow demand. Wheat feed trade at Kansas City was limited to scattered lots for quick shipment to mixers and nearby interests while offerings from both local and country mills were liberal. Storage stocks were reported gradually becoming larger at that market as mills were reluctant to place spot feed upon the market at current prices. Mill offerings were liberal at Cincinnati but buyers were confining orders to their immediate requirements. Soft Winter wheat feeds were dull and weak at St. Louis. Demand was dull in the Southeast with buying limited principally to small lots for immediate needs. Restrictive credit in this section has lessened consumer demand from interior points. In contrast, demand showed some improvement in the Southwest. Mill stocks are small and with only Texas mills supplying the trade, the undertone of the market was firm.

Linseed Meal: Linseed meal prices were unchanged to \$1 per ton lower. Weakness in cottonseed meal was a depressing factor in the market for this feed. Production of linseed meal was light at Minneapolis and demand poor. Chicago competition continues to restrict trade at Minneapolis. Linseed meal 34 per cent protein was quoted at Chicago at \$48.50 to \$49 and at Minneapolis at \$49.50 per ton.

Cottonseed Meal: Cottonseed meal prices declined \$1 to \$2.50 per ton at the larger distributing markets east of the Rocky Mountains but advanced \$2 per ton at Los Angeles and San Francisco. The market was easier at Memphis with mills reluctant to follow the open market. Future trading was light during the past week and prices declined nearly to the lowest level of the season, influenced by the weakness in other feeds. Closing bids on March 11, 41 per cent protein basis, were as follows: March \$31.95, May \$32.40, July \$32.60, August and October \$33 per ton. Mills in and around Atlanta were reported offering meal as rapidly as the seed was received and processed. Meal inquiry was reported good for this season of the year and showed some improvement over two weeks to a month ago, reflecting largely increased takings by fertilizer manufacturers. Demand appeared about normal for this season of the year in northern Texas but considering the open weather the market was relatively steady. Hulls continued in good request. Cottonseed meal advanced \$2 per ton at Los Angeles, reflecting the falling off in receipts and rather heavy consumption. Prices advanced a like amount at San Francisco due to the reduced operations by mills rather than an increase in demand.

Gluten feed and meal prices held unchanged this past week. Offerings were rather liberal but apparently there was little settling pressure. Demand was slow and scattered. Fair amounts were reported moving at Chicago at unchanged prices.

Hominy Feed: Hominy feed was unchanged at \$2.50 per ton lower as the result of heavy offerings, some selling pressure, poor demand and lower corn prices. The No. 3 Yellow corn declined about four cents at Chicago this past week and at Kansas City about three cents per bushel.

Alfalfa meal: Alfalfa meal prices were also lower, reflecting the weakness in other feeds. The demand which prevailed a week ago practically disappeared at Kansas City and inquiry is lacking at present prices. Demand was also dull on the Pacific Coast.

Feeding was light this past week in the Rocky Mountain section. Open ranges and generally mild weather tended to reduce feeding requirements, except that some are as were still being affected by the drought. Pastures were fair, ranges were improving and the necessity for feeding was becoming less in Colorado and as a result the demand for feedstuffs decreased. Wheat feeds dropped \$4 per ton f.o.b. Denver and Colorado common points. Corn chops and cracked corn were quoted at \$2.15

to \$2.25 and beet pulp in a range of \$2 to \$2.10 per 100 pounds.

In the more western states range and livestock conditions were largely satisfactory. The millfeed market was dull and slightly weaker at San Francisco and Los Angeles. Demand averaged fair at San Francisco but the undertone was weak because of competition from Argentine bran and middlings, about 1,000 tons of which were reported sold from March to May shipment, at \$28.50 c.i.f. San Francisco. Excellent pasture conditions were limiting the sales to sheep and livestock feeders while

poor dairy credit conditions and unsatisfactory butter prices were curtailing inquiry from dairymen. Substitution cheap feed barley at \$10 to \$12 per ton under millfeed prices was reported affecting sales of millfeeds in central California. Concentrates were generally dull and inactive at both San Francisco and Los Angeles. Offerings were fairly liberal but demand was poor at San Francisco. Limited European taking have caused oriental sellers to increase selling pressure at Pacific Coast markets. Copra meal, for example was reduced \$5 this past week to the lowest level in three years.

Feed Formulas Summarized

WE FIND that a great many readers have been interested in miscellaneous articles showing what the various state experiment stations are doing in the investigation of feedingstuffs and their recommendation of feed formulas. In order to elaborate the latter and to enable dealers who are interested to have these formulas in convenient form we are reprinting them in groups according to their several purposes.

At the same time we are showing in each group the ingredients found in some of the widely-used prepared feeds, but without the proportions of each ingredient. It will be noted that the experienced feed manufacturers recognize the value of many ingredients, which give added digestibility and palatability to the feed although the same proportions of protein, fat, fiber and nitrogen free extract could be obtained with simpler formulas.

CHICK STARTING MASH

Commercial Chick Starting Mash, No. 1

Cornmeal, alfalfa leaf meal, pulverized barley, dried buttermilk, meat meal, oat meal, oil meal, gray wheat shorts, calcium carbonate, ground egg shell, charcoal, salt, cod liver oil.

Commercial Chick Starting Mash, No. 2

Oat meal, hominy feed, yellow hominy feed, bran, wheat middlings, bone meal, fish meal, cod-liver meal, alfalfa meal, cod liver oil, ground limestone, salt, molasses.

Commercial Chick Starting Mash, No. 3

Meat scraps, corn meal, bran, linseed meal, wheat germ alfalfa leaf meal, salt, charcoal, dried buttermilk, oat middlings, wheat middlings, cod liver oil, bone meal, ground limestone.

Texas A. E. S. (Agricultural Experiment Station)

Chick Starting Mash

Yellow corn meal	50 per cent
Wheat gray shorts	20 per cent
Dried Buttermilk	19 per cent
43 per cent protein cottonseed meal	6 per cent
Alfalfa leaf meal	5 per cent
50 per cent protein meat scraps	4 per cent
Bone meal	2 per cent
Finely ground oyster shell	2 per cent
Salt	1 per cent

Dried skimmed milk may be substituted for dried buttermilk when the price makes such substitution advisable.

Nebraska A. E. S. Chick Mash

Yellow cornmeal	44 per cent
Shorts	25 per cent
Bran	10 per cent
Linseed oil meal	2.5 per cent
Meat and bone scraps	10 per cent
Dried buttermilk	2.5 per cent
Alfalfa leaf meal	5 per cent
Salt	1 per cent

Utah A. E. S. Chick Starting Mash

Bran or millrun	150 pounds
Ground wheat	150 pounds
Ground corn	100 pounds
Dried milk	60 pounds
Meat meal or fish meal	60 pounds
Bone meal	25 pounds
Finely ground limestone	15 pounds
Charcoal	15 pounds
Fine salt	4 pounds
Alfalfa meal	35 pounds

One quart of cod liver oil should be mixed with each 100 pounds of mash.

New England College Conference Chick Mash

Coarse Yellow cornmeal	200 pounds
Wheat bran	100 pounds
Wheat flour middlings	100 pounds
Ground oat groats	100 pounds
Meat scraps, not less than 50% protein	25 pounds
Fish meal, not less than 50% protein	25 pounds
Dried skimmed milk or dried buttermilk	50 pounds
Alfalfa leaf meal, not over 20% fiber	25 pounds
Edible steamed bone meal	25 pounds
Common salt	5 pounds

Commercial Growing Mash No. 1

Wheat middlings, cornmeal, oat groats, meat and bone scraps, corn germ meal, oil meal, corn gluten

meal, alfalfa meal, bran, cottonseed meal, gentian, iron sulphate, magnesium sulphate, sodium bicarbonate, iodized salt, charcoal, calcium phosphate, dried buttermilk, bone meal, ground limestone, cod liver meal, cod liver oil.

Commercial Growing Mash No. 2

Dried buttermilk, meat scraps, bone meal, fancy ground oats, ground bran, corn feed meal, wheat middlings, hominy feed, choice alfalfa meal, linseed oil meal, charcoal, cod liver oil, salt.

Texas A. E. S. Growing Mash

Ground milo (or corn or kafir)	22 per cent
Wheat gray shorts	20 per cent
Wheat bran	19 per cent
Ground whole oats	15 per cent
43 per cent protein cottonseed meal	10 per cent
Alfalfa leaf meal	5 per cent
50 per cent protein meat scraps	5 per cent
Ground oyster shell	2 per cent
Bone meal	1 per cent
Salt	1 per cent

LAYING MASH

Commercial Laying Mash No. 1

Dried buttermilk, meat scraps, corn feed meal, corn gluten feed, alfalfa meal, linseed oil meal, bran, gray shorts, bone meal, ground limestone, salt.

Commercial Laying Mash No. 2

Cod liver meal, cod liver oil, buttermilk, hominy feed, corn feed meal, kafir meal, wheat mixed feed, pulverized oats, alfalfa meal, linseed meal, cottonseed meal, meat and bone meal, fish meal, ground limestone, calcium phosphate, charcoal, iron sulphate, salt.

Utah A. E. S. Laying Mash Without Corn

Bran	26 pounds
Shorts	12 pounds
Barley, ground fine	30 pounds
Meat meal	18 pounds
Charcoal	2½ pounds
Salt	¾ pounds
Bone meal	1½ pounds
Ground limestone	1½ pounds

Utah A. E. S. Laying Mash With Corn

Bran	25 pounds
Shorts	12 pounds
Corn, ground fine	20 pounds
Barley, ground fine	12 pounds
Meat meal	18 pounds
Charcoal	2½ pounds
Salt	¾ pounds
Bone meal	1½ pounds
Ground limestone	1½ pounds

Nebraska A. E. S. Laying Mash

Yellow cornmeal	400 pounds
Shorts	250 pounds
Bran	100 pounds
Meat meal or tankage	100 pounds
Alfalfa meal	90 pounds
Cotton seed meal	60 pounds
Salt	10 pounds

Ground oyster shell and grit to be supplied separately.

Texas A. E. S. Laying Mash

Ground corn	20 per cent
Wheat gray shorts	20 per cent
50% protein meat scraps	20 per cent
Wheat bran	18 per cent
Ground whole oats	15 per cent
Alfalfa leaf meal	5 per cent
Ground oyster shell	1 per cent
Salt	1 per cent

Maine A. E. S. Laying Mash

Bran	200 pounds
Corn meal	100 pounds
Middlings	100 pounds
Gluten feed	100 pounds
Meat scraps	50 pounds
Fish meal	50 pounds
Bone meal	25 pounds
Alfalfa leaf meal	25 pounds
Salt	5 pounds

Washington State College Laying Mash

Wheat bran	200 pounds
Wheat middlings	100 pounds
Ground yellow corn	100 pounds
Meat meal	75 pounds
Fine bone meal	25 pounds
Salt	5 pounds

Grit and shell should be hopper fed.

University of Wisconsin Laying Mash

Ground corn	200 pounds
Ground oats	100 pounds
Wheat bran	100 pounds
Wheat middlings	100 pounds
Corn gluten feed	100 pounds
Alfalfa meal	50 pounds
Oil meal	50 pounds
Meat scrap (or tankage)	100 pounds
Ground limestone	25 pounds
Salt	10 pounds

New England College Conference Laying Mash

Coarse yellow corn meal	200 pounds
Wheat bran	100 pounds
Wheat flour middlings	100 pounds
Ground oats (heavy)	100 pounds
Meat scraps, 50 per cent protein	25 pounds
Fish meal	25 pounds
Alfalfa leaf meal	25 pounds
Extra steamed bone meal	25 pounds
Dried skimmed milk or buttermilk	25 pounds
Salt	5 pounds

Alabama Polytechnic Institute Egg Laying Contest Mash

Yellow cornmeal	30 pounds
No. 2 oat groats finely ground	20 pounds
Ground wheat middlings	10 pounds
Wheat bran	10 pounds
Meat scrap	20 pounds
Alfalfa leaf meal	8 pounds
Raw bone meal	4 pounds
Salt	1 pound

Southwest National Egg Laying Contest Mash

Wheat bran	100 pounds
Gray shorts	100 pounds
Yellow cornmeal	100 pounds
Meat scraps	100 pounds
Ground oats groats	60 pounds
Mineral mixture	27½ pounds
Alfalfa leaf meal	25 pounds

The mineral mixture consists of 10 pounds fine ground oyster shell, 2½ pounds sulphur, 2½ of bone meal, 2½ calcium carbonate, five pounds salt and five pounds charcoal.

Louisiana State University Laying Mash

Yellow corn meal	200 pounds
Wheat shorts	200 pounds
Wheat bran	200 pounds
Ground oats	150 pounds
50 per cent protein meat scraps	150 pounds
Cottonseed meal	20 pounds
Bone meal	10 pounds
Linseed meal	10 pounds
Salt	5 pounds

Practically every college and experiment station in the country recommends the use of milk or buttermilk in some form and of cod liver oil. When these do not appear in the mash they are supposed to be fed with the scratch feed or in a supplementary ration. Ground shell and grit also should be before hens at all times.

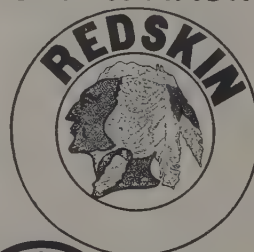
NEW FEED BRANDS

"HENRY'S" for dairy feed, horse and mule feed, wheat flour, and cream meal. The Henry Feed & Supply Company, Kosciusko, Miss. Filed October 28, 1929. Serial No. 291,663. Published February 18, 1930. Claims use since May, 1929.

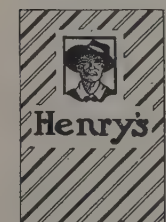
"MURPHY'S VIT-O-RAY" for supplemental feeds for poultry, hogs and cattle. Murphy Products Com-

MURPHY'S
FORMULA
MINERAL FEED

SUPER-MASH



PROVEN
ORAVITE



MURPHY'S
VIT-O-RAY

Omaha, Neb. Filed December 19, 1929. Serial No. 293,888. Published February 25, 1930. Claims use since February 13, 1926, on poultry feeds of all kinds, hog and pig feeds, and dairy feeds; since June 5, 1928, on stock feeds.

"ORAVITE" for poultry feed. California Vitamine Company, Inc., Los Angeles, Calif. Filed January 14, 1930. Serial No. 294,760. Published February 25, 1930. Claims use since January 1, 1929. "SUPER-MASH" for poultry feed. Feeders Supply & Manufacturing Company, Kansas City, Mo. Filed October 14, 1929. Serial No. 291,055. Published March 4, 1930. Claims use since July 16, 1928.

"ZIPPER FEEDS" for prepared feed for cattle, livestock, and poultry. Filed November 12, 1929. Serial No. 292,346. Published March 4, 1930. Claims use since August 15, 1929.

Not Subject to Opposition

"MURPHY'S FORMULA MINERAL FEED" for feeds with a high mineral content for cattle, hogs, sheep, poultry, and horses. Murphy Products Company, Burlington, Wis. Filed January 11, 1930. Serial No. 294,678. Published March 4, 1930. Claims use since June, 1920.

"PROVEN" for poultry food. Albers Bros. Milling Company, San Francisco, Calif. Filed May 20, 1929. Serial No. 284,283. Published March 4, 1930. Claims use since January 1, 1929.

Trademarks Registered

867,029. Sheep Feed. Grain Belt Mills Company, South St. Joseph, Mo. Filed October 17, 1929. Serial No. 291,159. Published November 26, 1929. Registered February 11, 1930.

267,071. Stock Feeds. Live Stock Exchange, Inc., Des Moines, Iowa. Filed September 12, 1929. Serial No. 289,703. Published November 26, 1929. Registered February 11, 1930.

267,738. Calf Meal, poultry feeds, hog and pig feeds, and dairy feeds. W. L. Drake, doing business as Humboldt Elevator Mills, Humboldt, Kan. Filed October 12, 1928. Serial No. 273,743. Published December 3, 1929. Registered February 25, 1930.

267,853. Developing Grains, starter mash, baby-chick scratch feed, dairy rations. El Campo Rice Milling Company, El Campo, Texas. Filed May 20, 1929. Serial No. 284,293. Published December 17, 1929. Registered March 4, 1930.

Prints

12,155.—Title: On Making Molasses Feeds. For Gruendler equipment for cold mixing molasses feeds. Gruendler Crusher & Pulverizer Company, St. Louis, Mo. Published September 3, 1929. Registered October 29, 1929.

12,171.—Title: You too will like Crosman Seeds. For seeds. Crosman Seed Company, Inc., East Rochester, N. Y. Published December 1, 1928. Registered November 5, 1929.

Labels

36,462.—Title: Duplex. For chick mash. Southern Milling Company, Augusta, Ga. Published January 15, 1929. Registered October 15, 1929.

36,587.—Title: Kanna Puppy Food. For prepared food of meat, oil, milk and cereals for puppies. The Southwestern Packing Company, Inc., Phoenix, Ariz. Published August 14, 1929. Registered November 5, 1929.

FROM July 1, 1929 to March 1, 1930, United States barley exports were 18,907,000 bushels, compared to almost 50,000,000 bushels during the corresponding period in 1928-29.

BEANS

FARM BOARD ADVANCE TO BEAN GROWERS RETARDS TRADE OF BEAN HOUSES

The Federal Farm Board has advanced \$30,000 to the Colorado Bean Growers Association, and a \$100,000 loan is being approved for Idaho growers. As a consequence bean dealers throughout wide sections of the West have run into a blind alley so far as trade at current prices is concerned.

This situation is almost in the phenomenon class in view of the fact that Idaho, Colorado, and New Mexico all had bumper bean crops the past season. Bean elevators in Denver and elsewhere report their accumulations of beans are far less than the demand.

GOVERNMENT RELEASES BEAN PRODUCTION FIGURES

Final returns of 1929 bean production in the United States, as shown by revised figures of the Government, indicate an increase of nearly 2,000,

000 bushels above the 1928 harvest. Total yield in 1929 was 19,337,000 bushels.

Michigan, largest bean-producing state, is credited with 5,691,000 bushels, with California's yield only 600,000 bushels less. Other states, with their production listed in bushels, are: New York 1,250,000; Montana 525,000; Idaho 2,116,000; Wyoming 481,000; Colorado 1,911,000; and New Mexico 1,688,000.

The principal changes shown in the report are in acreage figures. In Michigan the production estimate is about the same as last year, but the acreage has been increased while the yield has been placed down to 8.2 bushels per acre.

In commenting on the estimates the Federal report says that this year's crop shows "a somewhat smaller production of pea beans, small whites, red kidneys, and pinks, and a much smaller crop of Mexican reds. It means a slightly larger production of limas and cranberries, considerably more black-eyes, and a much larger production of pintos and great northern."

A GUESS ON BEAN MARKETS

"The Bean Bag doesn't always predict accurately the trend of the market, and there has been criticism at times because we made flat statements when a little hedging might have been done. For instance, the 1929 crop in Michigan was short, and right along we said it would be as high as the previous year. We were wrong. But we also said prices were too high and they should be down a couple of dollars; and for the last several months they have been ruling about the point we had in mind: Percentage of .500.

"Rather foolish to predict the 1930 market. With Michigan's running between \$6 and \$7, farmers are making a fair profit on their crop, and should be ready to again plant a normal acreage or better. Pinto growers in Colorado and New Mexico raised a large crop and their prices haven't been any too encouraging. California and the Northwest also grow many beans and have been receiving fair prices. New York has followed Michigan closely.

"Developments in Michigan, including a record-breaking blizzard just before Christmas, might tend to raise bean prices because of difficulty in getting deliveries from farmers. Roads have been impassable except along trunk lines. Importation is reported to have slackened, and a pickup in demand would strengthen prices.

"Market students believe 1930 will be a year of stable business, with bean jobbers keeping away from speculation. A few are said to have lost in the stock market crash, and they especially will be wary. The tariff remains unsettled. It might help in the 1930 crop, if the bean tariff increase goes into effect before next fall."—*Bean Bag*.

BEAN-SALES SETUP MADE

Organization plans for a \$1,000,000 national bean marketing association, presented recently by representatives of the dry bean industry, have been approved, it is announced by the Federal Farm Board.

This new national setup will handle only dry beans "to promote a more orderly, efficient, and profitable marketing" of the commodity. It is proposed to include every co-operative dealing in dry beans in the membership of the association, it was stated orally by Joseph Plummer, president of the Colorado Bean Growers Association, Denver, following the recent conference with the board.

An educational campaign has been instituted in New York looking toward the organization there of a bean co-operative, since that is the only district without one. It would be necessary for it to be represented by a local co-operative before the growers could have affiliation with the new body.

Mr. Plummer pointed out that the proposed \$1,000,000 sales agency was not asking for financial assistance. He explained that green bean growers and handlers would not be included in the new set-up. String beans, it was explained by the Federal Farm Board, would probably come under the national setup for fresh vegetables, since these beans are perishables.

pany, Burlington, Wis. Filed January 11, 1930. Serial No. 294,679. Published February 18, 1930. Claims use since June, 1928.

"RED SKIN" for poultry feeds of all kinds, hog and pig feeds, dairy feeds, stock feeds, and other products. Nebraska Consolidated Mills Company,

March 15, 1930

ASSOCIATIONS

FARMER GRAIN DEALERS MEET

Convicting the present marketing system of fostering two evils—over-production and injudicious buying and selling—the Farmers Grain Dealers Association of Ohio, which met late last month in Toledo, went on record as opposing the method of dumping a year's wheat crop on the market at one time. It must be spread out over the 12 months, held in elevators and marketed as needed if the wheat grower is to have a fair return, members of the association declared.

"It costs \$1.23 a bushel to grow wheat in Ohio," William C. Horn, president of the Ohio Grain Dealers Association said: "This is figured on a 20-bushel yield to the acre. Last year farmers got only 17 bushels. And today (February 26) wheat was being quoted at \$1.04.

"All farmers must be educated to the needs of the wheat-marketing. We must make terminal arrangements to hold reserve crop in stock. There is 2 per cent more wheat acreage for 1930 than last year. We must prepare for intelligent marketing of this crop."

The Ohio Farmers Grain & Supply Association, a subsidiary of the Farmers Grain Dealers Association of Ohio, became a stockholder in the Farmers National Grain Corporation, organized to market grain for the 6,000,000 United States farmers. Capital stock of \$10,000 is held by the Ohio group.

New officers were elected at the meeting and are as follows: President, William C. Horn; first vice-president, L. C. Schmunk; second vice-president, Leon Gove; secretary, Charles Latchaw.

ILLINOIS DEALERS HEAR HOWARD DEFEND CO-OPS

Speaking before the twenty-seventh annual convention of the Farmers Grain Dealers Association of Illinois, J. R. Howard, director of organization for the Federal Farm Board, emphatically denied that it was the intent of the new farmer-owned and controlled co-operative organizations to ruin established business and confiscate investments. Mr. Howard made it plain that existing marketing facilities are not to be scrapped.

"In their stabilization of prices," he said, "the farm board will not go contrary to the trends of economic laws. The farm board is too hard-headed, and knows the danger too well to try to set and get an artificial price for grain or other commodities. The board must and will follow the law of supply and demand and that law is effective only when it acts without restraint.

"It is not the purpose of Congress or the farm board to junk the present efficient marketing facilities or personnel operating in conformity to farmers' welfare. It will require practically just as much capital and labor and warehousing and other facilities under the co-operative system as are now being used. So far as the facilities are concerned, the Federal Farm Board cannot assist in the building of new ones until a survey of the existing facilities has been made and effort made either to lease or buy those facilities at reasonable rates. No confiscation of useful property is contemplated."

WASHINGTON DEALERS MOVE TO IMPROVE TRADE RULES

Definite action in regard to proper trade rule practice was taken by the Feed Dealers Association of Washington at its second annual convention held last month in Tacoma. One hundred and fifty dealers from all parts of Washington and neighboring states attended.

Officers for the ensuing year were elected by the board of governors. They are: President, Charles England; vice-president, A. G. Nelson; secretary-treasurer, George R. Thompson.

Important business transacted by the convention included the adoption of a schedule of uniform sack weights, of standard terms to be observed in filling hay contracts, of a set of rules for procedure in arbitration of disputes, and 14 tentative trade practice regulations. The latter cover practices general throughout the trade in matters in terms of sale, standard bag weights, misbranding, imitation of trade name, defamation of competitors, feed association terms on hay, selling below cost, unwarranted quantity discounts, public display of prices and terms, inducing breach of contract, rebates, dividends and profit sharing, guaranteeing

against decline, charge for warehousing and collection of hauling charges.

In his annual message, President England touched on the marketing act, saying he believed it was favorable only to the co-operatives and was likely to drive out the independent feed dealer. He stated that the association has appointed a public relations committee to watch every move closely and to immediately advise the members of new developments.

In regard to association affairs, he explained that it had been necessary to increase the dues and place the organization on a budget system to clear it of all outstanding debts. He said that railroads have announced an increase in hay rates which the association had vigorously opposed. At the present time, he continued, the attitude of the association was one of "watchful waiting" for a decision on this matter and that the members could look for a favorable decision.

A report on the newly organized Oregon Feed Dealers Association was given by W. C. Theda, president. Mr. Theda brought a message of appreciation from the Oregon members for the interest taken in their association by both the Washington dealers and the national association.

TRADE GROWTH KEYNOTE AS EASTERN DEALERS MEET

On February 21 and the holiday following, members of the Eastern Federation of Feed Merchants convened at Binghamton, N. Y., for a "trade-expansion conference," and broke several previous attendance records.

F. B. Morrison, feed expert of Ithaca, N. Y., where he is professor in the New York College of Agriculture, gave one of the feature addresses. Less technical in nature was the message of M. R. Horton, Peekskill, N. Y., who spoke on the value of slogans in building trade. M. T. Munn, seed expert, gave a brief address.

F. M. McIntyre, of Potsdam, N. Y., president of the feed federation, introduced D. K. Steenbergh, secretary of the Central Retail Feed Dealers Association, who spoke on current competitive conditions.

CONVENTION CALENDAR

March 26-27—Kansas Farmers Co-operative Grain Dealers Association meets in Hutchinson, Kan.

March 28-29—Oklahoma Farmers Grain Dealers Association meets in Enid, Okla.

April 25-26—California Hay, Grain and Feed Dealers Association meets in Los Angeles, Calif.

May 13-14 (tentative)—Illinois Grain Dealers Association meets in Decatur, Ill.

May 20-21—Kansas Grain Dealers Association meets in Hutchinson, Kan.

May 22-24—American Feed Manufacturers Association meets in French Lick, Ind.

June 16-17—Central Retail Feed Association meets in Milwaukee, Wis.

June 25-27—American Seed Trade Association meets in Toronto, Canada.

July 7-8—National Hay Association meets in Columbus, Ohio.

October 12—Terminal Grain Weighmasters National Association meets in Chicago, Ill.

October 13-15—Grain and Feed Dealers National Association meets in Chicago, Ill.

October 14—Chief Grain Inspectors National Association meets in Chicago, Ill.

NEW REGIONAL ASSOCIATION FOR FEED MANUFACTURERS

C. N. Barrett, of Northrup, King & Co., Minneapolis, Minn., was elected first president of the Northwest Feed Manufacturers Association at its organization meeting held last month in Minneapolis. The organization expects to draw a great many feed-miller members from the seven states, Minnesota, the Dakotas, Montana, Iowa, Wisconsin, and northern Michigan.

C. H. Karschner, of the Pillsbury Flour Mills Company, was elected vice-president and an Albert Dickinson representative, G. W. Smith, secretary-treasurer. The executive committeemen likewise represent the big mills: C. C. Massie (Northrup-King); H. R. McLaughlin (Washburn Crosby); C. E. McCartney (Ralston Purina); and H. M. Savage (International). Officials of the association announce that their purpose is "to improve trade

and selling conditions in the Northwest."

"There is no intention on the part of the association to coerce," President Barrett emphasized. "It is just a case of sound business practice for feed manufacturers and dealers."

Association Briefs

THE Northwest Grain Association has leased offices at 600-602, Flour Exchange Building, in Minneapolis, having moved in last month. The Farmers National Grain Corporation will also open offices in Minneapolis soon.

MORE than 150 feed dealers and feed salesmen attended the short course on feed held last month at the Virginia Polytechnic Institute at Blacksburg.

MEMBERS of the Mill & Elevator Fieldmans Association met in the Palmer House, Chicago, last month for their twenty-third annual convention. Among the speakers was George Livingston, executive vice-president of the Millers National Federation.

FRED HOLM, owner of the Olympia Feed Company, was elected Southwest Washington governor of the Washington Feed Dealers Association at the Tacoma meeting of the state organization.

THE Minneapolis Grain Shippers Association held its regular monthly dinner and business meeting at the Nicolett Hotel, the feature being an interesting talk on the situation in Turkey.

W. W. CUMMINGS, secretary of the Ohio Grain Mill and Feed Dealers Association, with his wife, returned early this month from a motor trip to Florida.

PLANS are going forward for the sixth annual convention of the California Hay, Grain and Feed Dealers Association, to be held in Los Angeles, April 25 and 26. The program of the Federal Farm Board as it affects the grain business will be one of the most important questions brought to the front for the consideration of the association.

LEON COVE demonstrated why "toastmastering" is an art at the annual banquet for the Farmers Grain Dealers Association of Ohio last month. The address of the evening was delivered by Frank L. Mulholland, attorney, of Toledo. Music was furnished by Ben Hofner's orchestra.

TWO regional meetings of the grain trade were sponsored by the Illinois Grain Dealers Association last month, one being held at Chatsworth and the other at Wenona, Ill.

A NEW campaign for additional members has been started by the Indiana Grain Dealers Association, requesting all members to take part. The goal has been set at 100.

THE Kansas Grain Dealers Association will hold its thirty-third annual convention May 20 and 21 at Hutchinson, Kan., according to announcement made by E. J. Smiley, secretary.

THE New York State Feed Manufacturers Association has changed the name of its organization to the North Atlantic States Feed Manufacturers Association. The new president is R. S. Riford.

MEETINGS were held in Hillsboro, Salem, and Eugene, Ore., March 12, 13, and 14, respectively, by the Oregon Feed Dealers Association, recently organized. Satisfactory response to the work of the association has been received, says W. C. Theda, president.

NEW WHEAT EXPORT REGULATIONS FOR SOUTH AFRICA

As a result of representations made by wheat farmers to the Minister of Agriculture, five grain elevators are to be available from January 1 to May 31 for the storage of wheat throughout the Union of South Africa, according to a report from Assistant Trade Commissioner DuWayne G. Clark. Four of these elevators are in the Orange Free State, at Bethlehem, Clocolan, Ficksburg, and Westminster. The fifth is at Middelburg, Transvaal.

The department of agriculture has announced that wheat will be accepted and graded at the five aforementioned elevators, as well as at Potchefstroom, Transvaal, and at Moorreesburg, in the Cape Province, under government regulations: The grades shall be as follows: Choice White—To include any white wheat which contains an admixture of not more than 49 per cent of Red wheat and 5 per cent of Durum wheat. Wheat in this grade shall weigh not less than 62 pounds to the Imperial bushel, and contain not more than 2 per cent of foreign matter; and choice Red—to include any Red wheat which contains an admixture of not more than 29 per cent of White wheat and 5 per cent of Durum wheat. Wheat in this grade shall weigh not less than 62 pounds to the Imperial bushel.

FIELD SEEDS

RETAIL seed dealers indicated their spring sales would be smaller than last year for the Clovers, Alfalfa, Timothy, cowpeas, soy beans, millet, and sorgo. They expected sales of Sudan grass to be about the same as and seed corn slightly greater than last year. These conclusions were drawn from the reports, released this month, of nearly 1,800 retail dealers, received by the United States Bureau of Agricultural Economics. The in-shipments of these dealers, not including their local purchases, amounted to about one-twelfth the total quantity of Clover and grass seed that enters commercial channels. The total expected in-shipments of the 11 kinds of seed already mentioned and shown in the accompanying table, are about 7 per cent smaller than those of last spring.

The larger domestic crop of Red Clover was given as the principal reason for expecting smaller in-shipments of that kind of seed. On the other hand, in those sections where larger in-shipments were expected, the lower price was given principally as the reason for shipping in greater quantities.

Further, the presence of the larger supply of Red Clover seed likewise was given as the chief cause for expecting smaller in-shipments of Sweet Clover and the comparatively lower price of Red Clover was given as the main reason for shipping in less Alfalfa seed in some sections. The larger crop of Alsike Clover was expected to curtail in-shipments of that kind of seed. The carryover of Timothy seed bought previously was given by retailers as their chief reason for expecting smaller in-shipments. The high prices of cowpeas and sorgo ("cane") were given as reasons for curtailing in-shipments of those kinds.

Ample supplies of soy beans in many localities caused retail dealers to expect smaller in-shipments. In several states the germination of seed corn was such that larger in-shipments would be required.

Retail dealers on February 1 were requested to give the estimated quantity of each kind of seed that would be shipped in by them for sowing the 1930 crop. At the same time, they were asked to give their in-shipments last year with reasons for the differences of the in-shipments for the two years. A majority of the reports came from merchants operating general stores, hardware stores, elevators, etc., in small towns where they are in close touch with farmers. Their figure should be a reliable indicator as to how farmers' purchases will compare this season with those of last spring. The accompanying table shows in percentages by states how the in-shipments of these dealers compare with each other for the two years. Figures from a few wholesale seedsmen were not used in the table but were obtained for guidance.

In-shipments of Red Clover seed by 1,103 retail dealers, amounting to 3,656,000 pounds in the aggregate last year, are expected to show a decrease of about 20 per cent this spring. Demand was expected to run ahead of that of last year in the eastern con-

Prospective Seed Demand

suming section but to fall far behind that of a year ago in the principal producing states, with the exception of Oregon. In making a comparison between the in-shipments of this spring and those of last spring, 359 dealers indicated that they would be larger this year, 421 that they would be smaller, and 323 that they would be about the same for the two years.

A decrease of 10 per cent in the quantity of Alsike Clover to be shipped in was indicated by 1,105 retail dealers. Last spring they shipped in 1,729,000 pounds in the aggregate. Dealers reporting greater in-shipments numbered 294, compared with 340 who reported less and 471 who expected about the same quantity for both years. Retail dealers, numbering 1,079, expected their in-shipments of Sweet Clover to be about 8 per cent smaller than last spring, when in the aggregate they amounted to 3,448,000 pounds. Comparing in-shipments this spring with last spring, 252 dealers indicated they would be larger, 332 that they would be smaller and 495 that they would be the same for the two years. A decrease of about 6 per cent in the in-shipments of Alfalfa seed was shown by 1,195 retail dealers whose in-shipments totaled 3,157,000 pounds last spring. Increases in some of the heavy producing states were offset by decreases in others. Comparing in-shipments expected this spring with those of last spring, 304 reported they would be larger; 346, smaller; and 545, the same for the two years.

The in-shipments of Timothy seed by 1,067 dealers, amounting to 4,261,000 pounds in the aggregate last year, are expected to show a decrease of about 8 per cent this spring. Dealers expecting larger in-shipments numbered 220, compared with 326 who expected they would be smaller and 521 who indicated about the same for both years.

Retail dealers expected in-shipments of soy beans to show a decrease of about 5 per cent over those of last spring. Of the 523 dealers whose in-shipments last year amounted to 2,358,000 pounds in the aggregate, 120 indicated larger, 119 smaller, and 284 about the same as last year.

Reports of 646 dealers whose in-shipments of millet seed amounted to 1,372,000 pounds last year, indicated a decrease of 2 per cent this spring. Larger in-shipments than last year were expected by 131 dealers, while 142 expected smaller and 373 the same as last year. Retail dealers expected to ship in about the same quantity of Sudan grass seed as last spring. Of the 629 dealers whose in-shipments last year amounted to 2,006,000 pounds, 117

expected larger in-shipments, while 133 expected they would be smaller and 379, the same.

An increase of about 3 per cent was indicated in the reports of 665 retail dealers who shipped in a total of 60,500 bushels of seed corn last spring. More seed corn than last year was expected to be shipped in by 187 dealers, while less was indicated by 158, and the same by 320 dealers.

HOW TO JUDGE ALFALFA SEED

Alfalfa seed should be plump, uniform, and practically free from small, shriveled, or immature seed. Fresh seed is usually olive green in color, but may be dark green or brown. Seed which is old or has been exposed to rain will be darker in color than normal, but color is not important if the seed germinates well (around 90 per cent). The dealer is required to state on the label the percentage of germination as well as the weed seed content.

Some lots of alfalfa contain a considerable percentage of what is known as hard seed. Although such seed is usually sound, the hardness of the seed coat prevents it from absorbing water readily; hence its germination is delayed. A small percentage of hard seed is not seriously objectionable, but a large proportion necessitates a heavier rate of seeding to insure a good stand. The percentage of hard seed varies with seasonable conditions and also appears to be more prevalent in seed grown in some sections than in others.

Good Alfalfa seed should be free from weed seeds and other impurities, should be of good quality and of high germination, and should be as pure as possible as to variety.

Weed seeds are always objectionable in Alfalfa seed, but particularly is this true of noxious weeds which may become permanent pests, or which may interfere with the growth of the Alfalfa itself. Weed seeds may occur in Alfalfa seed from any section of the country, but by due precautions they can be avoided. The careful seed grower does not allow objectionable weeds, especially those whose seed cannot be readily removed, to mature in the Alfalfa field. Seed dealers also are usually well equipped to remove weed seed, and other foreign material from seed, although certain weed seeds, for example some of the dodders, cannot be removed with any degree of success.

THE POOL'S PURE-SEED POLICY

In the pool-publicity organ, *Scoop Shovel*, R. M. Mahoney, general manager of a provincial wheat pool in Canada, outlines his organization plan for promoting a wider use of certified seed.

"Ready money and the bother of getting seed," he says, "are often the things that stand in the way of many growers starting at least a small registered seed plot. We, therefore, decided that we might accomplish something or at least make a start in the right direction if we were to make arrangements whereby growers could write to this office for registered seed, stating the kind and quantity required. We would secure this for them at the lowest possible price, send it on to them freight prepaid and charge the cost of this seed against their future Pool payments. I do not know that this will materially reduce the cost per bushel, but it does eliminate a large part of the bother to the individual and it eliminates the need of sending cash with the order."

Quantities which can be purchased for the individual must of necessity depend upon the quantity of grain that he has shipped to the pool. Seed will only be sent in quantities to members whose deliveries have been sufficient to warrant it.

FLAXSEED VARIETIES DEVELOPED BY "SURVIVAL OF FITTEST"

Sowing seeds where they have least chance to grow and mature is one of the methods science uses for improving plants. Flaxseed presents a good example.

About 30 years ago scientists learned that flax ceased to do well on old land because of the development of flax wilt, a fungous disease that was transmitted to the plants from the infected soil. A. C. Dillman of the United States Department of Agriculture tells how Professor H. L. Bolley, of North Dakota, and his co-workers developed improved flax by sowing seed in the very fields worst infested by the wilt organism. This resulted in the destruction of the seedlings that were susceptible to wilt. Relatively few of the plants were able to survive and mature seed for the next year's sowing.

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PROSPECTIVE SEED DEMAND, 1930 COMPARED WITH 1929

States	No. of re- ports	Red Clover	Alsike Clover	Sweet Clover	Alfalfa	Timothy	Cow- peas	Soy beans	Millet	Sudan grass	Sorgo (cane)	Seed corn
	%	%	%	%	%	%	%	%	%	%	%	%
New England	104	113	110	101	91	93	93	91	100	100	...	107
Southern	35	138	...	...	97	144	103	100	62	79	82	101
New York	54	107	109	97	107	99	98	100	112	101	...	98
Pennsylvania	80	110	115	100	95	96	90	116	112	114	...	99
Maryland	14	89	92	95	98	85	81	90	105	100	...	100
West Virginia	24	97	102	97	100	93	...	97	100	100	100	100
Virginia	28	118	108	116	109	73	72	102	167	101	127	99
Tennessee	20	78	116	106	105	106	119	98	101	100	129	59
Kentucky	43	96	86	75	68	82	97	107	76	86	99	111
Ohio	121	72	93	104	91	96	127	97	109	97	124	111
Indiana	81	59	66	87	80	93	72	93	89	80	91	70
Illinois	88	56	75	102	88	79	96	75	83	79	84	106
Iowa	164	83	85	84	97	90	90	99	91	105	93	100
Missouri	80	82	80	82	115	94	86	80	85	97	107	148
Michigan	116	56	80	83	84	74	102	84	102	89	...	102
Wisconsin	98	84	98	83	91	97	109	105	91	98	...	104
Minnesota	120	82	90	76	91	93	...	102	77	77	75	94
N. Dakota	42	...	...	99	119	75	...	...	101	102	98	93
S. Dakota	34	106	103	94	104	136	...	102	88	101	101	87
Nebraska	78	117	93	107	102	60	...	102	87	104	60	101
Kansas	81	141	109	100	133	123	132	111	92	110	74	146
Oklahoma	40	...	...	112	97	...	165	69	104	111	96	145
Arkansas	24	136	...	100	88	...	51	103	120	89	108	93
Texas	54	...	...	112	126	...	118	...	123	101	96	120
New Mexico	11	...	...	141	69	...	...	...	100	95	115	79
Montana	11	...	...	81	53	...	...	...	86	100	...	74
Colorado	23	155	...	113	91	...	...	...	102	89	99	74
Idaho	15	52	...	105	104	100	...	...	...	123	...	85
Washington	39	113	84	133	98	111	...	...	...	133	...	108
Oregon	27	145	103	102	101	97	...	...	...	100	...	104
California	28	...	...	121	74	...	...	...	...	80	107	59



ELEVATOR AND GRAIN NEWS

EASTERN

The Newsome Feed & Grain Company of Pittsburgh, Pa., recently closed its branch at Buffalo, N. Y.

Part of the storage tanks of the William-Kelly Milling Company, Pittsburgh, Pa., has been converted into a public warehouse to meet the needs created by the farm board.

The New York Central Railroad Company has equipped its plant, the Weehawken (N. J.) Grain Elevator with an indirect Hess Steam Drier of 4,500-bushel capacity an hour.

The grain and hay firm of George E. Morrison & Co., Baltimore, Md., has been dissolved, and the former partners, George E. Morrison, and Herman Runge, will operate separately.

The Fitchburg (Mass.) Farmers Co-operative Union, Inc., has been chartered to operate grain elevators and to deal in grain, feed, and other products. Evert Wainonen is president, and Oscar Jarkko, treasurer.

F. Brennisson & Son, Inc., has recently been organized at Buffalo, N. Y., to engage in the grain and hay business. The principals of the corporation are Fred Brennisson, Fred D. Brennisson, and Warren B. Wilkes, of Buffalo.

The Ralston Purina Company has let contract to Jones-Hettelsater Construction Company, of Kansas City, Mo., for the building of a concrete storage tank, 168 feet high, at Buffalo, N. Y. The house will have a capacity of 550,000 bushels.

The elevator property and flour mill of Bill, Bell & Co., Ogdensburg, N. Y., have been sold to the St. Lawrence Valley Power Corporation which will operate the plant. O. R. Bell, president, who has been with the company 46 years, plans to retire.

ILLINOIS

Miller & Seagrist have taken over the R. L. Todd elevator at Sugar Grove.

The Blackstone (Ill.) Farmers Grain Company will electrify its elevator.

The El Paso (Ill.) Elevator Company has installed truck lifts in its three elevators.

E. L. Wheeler & Company has installed an electric overhead dump in its plant at Onarga.

Otto W. Schade is operating the O. C. Baker elevator at Ashton which he recently purchased.

The Staley Manufacturing Company, of Decatur, has taken over the Uppendahl elevator at Dalton City.

The Frankfort (Ill.) Grain Company plans to repair its elevator this spring and install a large feed grinder.

Rose & McDavid Company have sold their grain elevator at Cushman (Sullivan p. o.) to Paul Smith, it is reported.

Shultz, Baujan & Co. has equipped its plant at Beardstown with moisture testing and grain grading equipment.

Stockholders of the Farmers Elevator Company, at Ladd, have let contract to George Sathors, of Bloomington, for the erection of a new grain elevator.

The East Peoria (Ill.) Elevator Company will start work in a few weeks on a 500,000-bushel grain storage addition to its plant. The capacity of the present house is 500,000 bushels.

The Federal Grain Elevators, Inc., of Peoria, are operating the elevator of the Rankin (Ill.) Grain Company which they leased recently for a term of years from the owner, Mrs. C. A. Burks of Decatur.

The Ocoya (Ill.) Farmers Elevator Company plans to replace its gasoline power with 10½-horsepower fully enclosed, self-ventilated motors. Antifriction bearings and head drives will also be installed.

The elevators at Deer Creek and at Cooper have been taken over by the farmers of these communities who plan to operate them. The houses were formerly owned by the Farmers Grain, Livestock & Coal Association.

The Farmers of Illinois have formed the Illinois Grain Corporation, a \$3,000,000 grain marketing organization, with headquarters in Chicago, to co-operate with the Farmers National Grain Corporation. C. G. Johnstone, Bloomington, is president;

J. C. Sailor, Cissna Park, vice-president; Harrison Fahrkopf, general manager, and Robert A. Cowles, treasurer.

The Rock Island elevator at Chicago, which has been in operation for over 40 years, is to be razed to make room for expansion of railroad property. The house, which is filled with grain, has a capacity of 1,000,000 bushels.

The Fernandes Grain Company, of Springfield, will start work soon on the construction of a new elevator at Farmersville to replace its house which recently burned. The new house will probably be of concrete construction.

The Moline (Ill.) Elevator Company was recently organized with a capital of \$10,000 as a subsidiary of the Montgomery Elevator Company, of Moline, to promote sales and service of the parent organization throughout the United States.

WESTERN

The Campbell County Farm Bureau is considering the purchase of one of the local elevators at Gillette, Wyo.

Construction work has started on the new grain elevator at Tacoma, Wash., for the port commission, as previously reported. The elevator will have 30 bins, each 110 feet high.

The I. C. Sanford Grain Company, Portland, Ore., has closed its business. Harold Sanford is liquidating the business in Portland, Spokane, and Seattle which was established five years ago.

The Brighton (Colo.) Farmers Co-operative Elevator Company has discontinued its side lines of implements, tires and accessories, and is conducting a strictly grain, feed and hay business.

Ahlquist Bros. have let contract for rebuilding the plant of the Wendell (Idaho) Milling & Elevator Company which burned in January. A warehouse and office building will be built now, and an elevator will be started later which will be ready for the new crop.

The Associated Grain Company has been incorporated at Yakima, Wash., with a capital stock of \$25,000. The company will handle grain and manufacture feed and will be located with the Miller Flour Mills with which it will be connected. Incorporators are L. O. Janeck, C. A. Peplow, A. W. Thomson, L. E. Perry, and J. G. Miller.

IOWA

The Farmers Elevator Company, of Malcom, has completed a new office building.

The Nebraska-Iowa Grain Company closed its elevators at Farragut on March 1.

R. P. Andreas has improved his plant at Mount Vernon with a one-ton feed mixer.

The Christensen Grain Company has installed an electric truck dump in its elevator at Clarksville.

The Farmers Elevator Company of Lanyon, has replaced its gravity dump with an electric truck dump.

Work is progressing on the steel tank annex which D. Milligan & Co. is adding to its plant at Jefferson.

Three automatic fire extinguishers have been placed in the elevator of T. S. Cathcart & Sons, of Correctionville.

The old H. L. Wilson elevator, erected at Osage in 1870, has been torn down. The house has been used for storage.

The Griswold (Iowa) Co-operative Company plans to improve the house, which it recently bought, to the extent of \$2,000.

The Farmers Elevator Company has awarded contract to T. E. Ibberson Company for repairs on its elevators at Scranton.

Moisture testing and grain grading equipment have recently been installed in the plant of the Farmers Grain Company of Charter Oak.

The elevator of the Raven Mineral Company, Council Bluffs, which burned recently, is to be rebuilt. Plans are now being arranged.

The Wabash Railroad will announce plans shortly for the erection of a \$600,000 grain storage elevator in Council Bluffs, it is reported.

The H. C. Pote elevator at Marengo is continuing business under temporary management awaiting probating of the will of H. C. Pote, late owner. Ray

Murrell, of Wilder & Murrell Elevator Company, Cedar Rapids, is administrator.

The Macedonia (Iowa) Grain & Lumber Company has been incorporated, with A. C. Lewis as president, and George W. Stephens as secretary.

The J. H. Owens Grain Company has been recently organized to operate at Des Moines. Mr. Owens was formerly with Taylor & Patton and with the Lockwood Grain Company.

Popkes Bros. have been operating since late in February the Gifford elevator at Parkersburg which they took over. The new company operates as the Popkes Grain Company.

The Wells-Hamilton Grain Company is operating its new elevator at Ewart. The house is equipped with electric motors, a 20,000 pound scale, 50-horsepower feed grinder, sheller, etc.

Ground has been broken for additional concrete storage tanks which will bring the capacity of the Davenport plant of the Ralston Purina Company up to approximately 1,000,000 bushels. Another grain storage project of the Ralston Purina Company is reported under the "Eastern" division of this department.

The Western Flour Mills are building a 400,000-bushel grain storage unit and river terminal at Davenport, which will be finished this spring. The new addition to the elevator will extend out into the Mississippi River and have a wharf 350 feet long which will be equipped with a marine leg. New grain pits and other improvements are being installed.

The Farmers Co-operative Elevator Company Morrison, has let contract to T. E. Ibberson Company for the erection of a modern 22,000-bushel house to replace the one which burned January 20. The elevator will have 10 hopper bottom bins, one leg, electric motors, improved spouting, 2,000-bushel automatic scale, a 15-ton Fairbanks-Morse Scale, etc. A bronze and tile office building, 24 by 36 feet, will also be built.

MINNESOTA AND WISCONSIN

G. H. Dillingham has closed his elevator at Granite Falls, Minn.

The Itasca Elevator Company, of Duluth, Minn., has discontinued its branch office at Minneapolis.

The Farmers Co-operative Elevator Company, Racine, Wis., has voted to increase its capital stock from \$25,000 to \$40,000.

Frank Fiebigler, formerly with the A. J. Pietrus Company, has leased an elevator at Cobden, Minn., in which he has installed a feed grinder.

The Knauf & Tesch Company Kewaunee, Wis., has discontinued its mercantile business and will confine its operations to its grain elevator.

A. M. Timm, of Sanborn, Minn., has purchased the Sweeney Bros. elevator at Arlington, Minn. Daniel Sweeney, former owner, died a few months ago.

The Williams Elevator Company at Beaver Dam, Wis., has been taken over by the Mayr Seed & Feed Company. The elevator has been in the Williams family for 40 years.

Henry Forbes has sold his grain and feed business at Arpin, Wis., to the McKercher Milling Company, Wisconsin Rapids, Wis. Donald McKercher will manage the plant at Arpin.

Work starts March 15 on a 500,000-bushel addition to one of the elevators of the Bay State Milling Company, of Winona, Minn. Contract has been let to Barnett & Record Company, of Minneapolis. The new unit is to be ready to receive grain by July 15.

THE DAKOTAS

The Western Terminal Elevator Company, of Sioux City, Iowa, has closed its elevator at Menno, S. D.

Van Osdel, Frick & Co. have equipped their elevator at Missionhill, S. D., with a gasoline engine and a feed grinder.

L. J. Nelson and Croll Hunter, Fargo, N. D., have dissolved their partnership, and will conduct the business as the Nelson Grain Company.

The Summit (S. D.) Farmers Co-operative Elevator Company plans to wreck two of its elevators this spring. The two houses are the old Dingsor elevator and a 25,000-bushel elevator now in opera-

tion. The material will be used for building coal sheds.

A building committee, headed by Herman Ganz, has been appointed to consider the erection of a Farmers Union Elevator at Burlington, N. D.

The old Shannard grain elevator which has been a landmark at Emery, S. D., for many years, is being wrecked. The lumber will be used for sheds.

INDIANA

The A. F. Holland Company, Vincennes, has been incorporated with a capital of \$10,000 to deal in grain and feeds.

The directors of the Logansport (Ind.) Elevator Company and of the Cass County Farm Bureau are considering the merger of the two organizations.

The Farmers Milling & Elevator Company, Veedersburg, has been incorporated with a capital of \$35,000. Incorporators are Walter Cook, D. W. Carpenter, E. Greenley, S. D. Patton, C. A. Cade, Byron F. Myers, and W. A. Parish.

SOUTHERN AND SOUTHWESTERN

Carl Hill has let contract to Rochelle & Rochelle for the construction of a 20,000-bushel elevator at Buchland, Texas.

The Santa Fe Grain Company is completing its new 25,000-bushel elevator at Friona, Texas. The house will be equipped with rapid handling machinery.

The Texas City (Texas) Terminal Railway Company has recommended enlarging its elevator facilities this year. The new improvements would approximate \$2,000,000.

The West Hamlin (W. Va.) Feed Company has been incorporated with a capital of \$25,000. Incorporators are H. S. McComas, Eustice Adkins, A. H. Aushutz, Louis R. Sweet, and A. F. Morris.

A project is being promoted in Medford, Okla., for the financing and constructing of a 50,000-bushel co-operative grain elevator which will cost approximately \$25,000. Frank Clive is one of the principals.

A 35,000-bushel frame and iron-clad grain elevator is being built at Lark, Texas, for the J. N. Beasley Grain Company, of Amarillo. The house will be equipped with rapid grain handling machinery.

Contract for the new 1,000,000-bushel grain elevator which the Oklahoma Wheat Growers Association will build at Enid, Okla., has been let to Jones-Hettelstater Construction Company, of Kansas City, Mo.

Carter Bros. are operating under the name of Carter-Stone, Inc., the elevator at Gruhlkey (Adrian p. o.), Texas, which they recently bought. New equipment, consisting of a seed cleaner and grader are to be installed.

The Atlanta (Ga.) Flour & Grain Company has added a new elevator to its plant which increases its capacity 75,000 bushels. The plant has also been equipped with two molasses tanks which have a total capacity of 30,000 gallons.

General Mills, Inc., has let contract to Barnett & Record Company, Minneapolis, for the erection of a 1,176,000-bushel terminal elevator to adjoin its plant at Wichita Falls, Texas. The new structure will consist of a work house and 36 concrete tanks.

Construction work has started on a 30,000-bushel grain elevator at Hereford, Texas. The farmer and business interests of White Deer and Hereford have formed an organization and subscribed stock for the promotion of the new project. J. L. Brooks is manager of the Farmers Grain Elevator Company at White Deer, which has a capacity of 40,000 bushels.

OHIO AND MICHIGAN

The Pewano (Mich.) Elevator Company plans to purchase the Croell elevator at Potterville.

The Sugar Ridge (Ohio) Grain Company has equipped its plant with a corn sheller and cleaner.

The W. B. Gramlich Company, dealers in grain, feed, etc., at Kenton, Ohio, has recently been incorporated.

The Farmers Grain & Feed Company at Danville, Ohio, has been taken over by Dale C. Lanning and J. W. Storm.

The Mid-Western Wheat Company has been recently organized at Kalamazoo, Mich., with a capital of \$10,000.

George Shafer has equipped his plant at Lynchburg, Ohio with a receiving separator, a corn cutter, and other machinery.

The United Grain Company has purchased from the Buckland Milling Company their elevators at Rossburg and Yorkshire, Ohio.

E. C. Smith has replaced the engine power in his elevator at Carland, Mich., with a 25-horsepower single phase motor. The motor is enclosed in a fire-resistive room.

The elevator and feed mill at Merrill, Mich., formerly operated by the Merrill Farmers Elevator Company, has been sold to Charles Wolohan, Inc.,

whose headquarters are at Saginaw. The feed grinder has been equipped with a magnetic separator.

The Hoytville (Ohio) Grain Company and the Eagle Grain Company are considering the merger of their companies which would be operated by a farmers organization.

The Amendt Milling Company is selling its old elevator at Trenton, Mich., to the Detroit & Toledo Shoreline Railway. The elevator was originally a mill, the first to be built in Trenton.

The Deerfield (Mich.) Co-operative Association has replaced its single phase motors with fully enclosed self-ventilated ball-bearing three-phase motors, equipped with automatic starters.

The Pewamo Elevator Company will rebuild the Croel elevator plant at Collins (Lyons p. o.), Mich., which recently burned. The company is negotiating for the purchase of the site from C. E. Croel.

The National Milling Company, Toledo, Ohio, plans to build a 2,250,000-bushel storage unit which will cost approximately \$600,000. The new unit will give the plant a total storage capacity of about 5,000,000 bushels.

L. E. Osmer, of the Michigan Elevator Exchange, Lansing, informs us that his company has no intention of buying up independent elevators in Michigan, as was reported in Michigan papers and in the last issue of this paper.

The Farmers Grain Dealers Association is interested in promoting a project for the building of a large terminal grain elevator, probably at Toledo or Fostoria, Ohio, for regional marketing operations of the Farmers National Grain Corporation.

The Valley City Milling Company is remodeling the Lockwood Elevator at Portland, Mich., which it recently bought, into a feed manufacturing plant. A 40-horsepower feed grinder and a corn cracking unit, both equipped with a magnetic separator, will be installed.

MISSOURI, KANSAS AND NEBRASKA

Farmers elevators are being organized at Ingalls and at Ulysses, Kan., it is reported.

The Farmers Union Elevator, Weeping Water, Neb., has been sold to Fred Klepser.

The Walter Johnson Grain Company has bought the Aden elevator at Waverly, Neb.

The Kenesaw (Neb.) Mill & Elevator Company has equipped its plant with a 40-horsepower motor.

The Farmers Elevator Company has purchased the Farmers Grain Company at Morse Bluff, Neb.

An electric dump has been installed in the plant of the Crowell Elevator Company at Petersburg, Neb.

The civic interests of Sidney, Neb., are considering plans for the building of a grain elevator this year.

The two elevators at Loup City and Austin, Neb., have been taken over by the Brown Grain Company.

The Plains (Kan.) Equity Exchange has let contract for the erection of a 150,000-bushel concrete elevator.

The Dodge City (Kan.) Co-operative Exchange has voted to increase its grain storage capacity 200,000 bushels.

The Manley (Neb.) Co-operative Grain Association, Inc., plans to build a new office and scale room, 14 by 24 feet.

The Farmers Co-operative Grain & Stock Company, Haggard, Kan., plans to raze its old elevator and build a new house.

The elevator of the Farmers Grain & Supply Company, Ray, Kan., is to be sold at public auction. The house was built in 1905.

The Fowler (Kan.) Equity Exchange plans to increase its grain storage capacity to 230,000 bushels. Work is now progressing on six large tanks.

George Gano, who operates a chain of elevators in Kansas, has recently sold his elevator at Montezuma to the Farmers Co-operative Company.

The Farmers Co-operative Elevator Company has been organized at Ulysses, Kan., which will build a 40,000-bushel frame, iron-clad elevator.

Flynn & Kearney are owners of the new elevator which is to be built shortly at Big Bow (Johnson p. o.), Kan., announcement of which was previously made.

The Consolidated Flour Mills Company has let contract for rebuilding the headhouse and storage tanks of its plant at Winfield, Kan., which recently burned.

The Peerless Flour Mills Company, Norton, Kan., has let contract to A. F. Roberts Construction Company for the erection of a 30,000-bushel cribbed elevator at Norcatur.

The Famo Feed Milling Company, St. Joseph, Mo., is including in its \$100,000 expansion program the erection of a reinforced concrete grain elevator which will give it storage space for approxi-

mately 500,000 bushels. The project also includes a mash feed unit, a loading dock and enlarging its office.

Jack Carter plans to build a 30,000-bushel frame iron-clad elevator at Milepost 29, six miles west of Ulysses (Manter p. o.) Kan. The house will be operated by electricity.

A 40,000-bushel elevator will be built this spring at Alamota, Kan., for the Farmers Elevator Company. The Santa Fe Railroad will build switch track extensions to the house.

The Cimarron (Kan.) Co-operative Equity Exchange has recently acquired a site on which to erect its new 100,000-bushel elevator, announcement of which was previously reported.

The Dodge City (Kan.) Terminal Elevator recently dedicated and opened the first 150,000-bushel unit of its proposed 500,000-bushel grain elevator. The terminal cost approximately \$180,000.

The Davidson Grain Company has equipped its plant at Ulysses, Kan., with a 2,500-bushel leg, has changed its power to electricity, and has installed a 15-horsepower Fairbanks Morse Motor.

The Johnson (Kan.) Co-operative Grain Company has been incorporated with a capital of \$20,000. The company plans to build a 40,000-bushel house which will be of frame construction and iron-clad.

An additional storage unit of 500,000 bushels is to be added to the plant of the C. D. Jennings Grain Company of Hutchinson, Kan. With this addition the plant will have a capacity of 900,000 bushels.

The Satanta (Kan.) Co-operative Grain Company has let contract to John Klein for the erection of its new 40,000-bushel iron-clad frame elevator, announcement of which has been previously made.

Work started March 10 on the erection of a 1,000,000-bushel addition to the Stratton grain elevator plant at St. Joseph, Mo. The new unit will give the company a storage capacity of 2,000,000 bushels.

Storage space of 750,000 bushels at Kansas City, Mo., has been granted by the Washburn Crosby Company to the Federal Farm Board with the stipulation that the wheat shall be moved before June 15.

The Farmers Grain & Supply Company has leased to the Nebraska Consolidated Mills Company, of Omaha, its elevators in Nebraska, located at Prosser, Jansen, Farmer, Blaine, Muriel, Level, and Halloran.

The Cargill Commission Company, Minneapolis, Minn., plans to build a 5,000,000-bushel grain elevator at Omaha, Neb. The new structure will cost \$2,500,000, and will be built on a site near railroad terminals.

The Hamacher Grain & Produce Company, Richmond, Mo., has been incorporated with a capital of \$35,000. Incorporators are Ralph O. Newton and Howard A. Hamacher. The firm was formerly O. N. Hamacher Sons.

J. Campbell, operator of the Campbell Grain Company at Hollis, Kan., has bought the Farmers Union Company's elevator at Lawrenceburg (Hollis p. o.) Kan. He will repair the house and operate it in connection with his elevator at Hollis.

The stockholders of the Nodaway Valley Farmers Elevator Company, Maitland, Mo., have voted to sell the property of the company to take care of its indebtedness, in which case it plans to reorganize and repurchase the business.

The Kansas-Colorado Regional Grain Association was recently organized at Hutchinson, Kan. The concern is a grain marketing association, capitalized at \$1,000,000, and is controlled and operated by farmers. E. E. Frizell, of Larned, is president.

An 80 by 50 foot annex will be built this spring on top of the Rorabaugh-Wiley Building, at Hutchinson, Kan., to furnish additional space for the Kansas State Grain Inspection Department. Considerable new equipment will be installed, according to Charles Shull, manager.

Contract has been awarded the J. M. McDowell Construction Company, of Denver, for the erection of a 1,000,000-bushel grain elevator at Hutchinson, Kan., for George Gano. A head house and 24 concrete storage tanks will make up the plant. Construction work has already started.

The Uhlmann Grain Company, of Kansas City, Mo., has let contract to James Stewart & Company, Chicago, Ill., for a 1,000,000-bushel addition to the Wabash elevator at Kansas City. The new unit, which will be completed in June, will give the company a total storage of 3,000,000 bushels.

The Starkweather Grain & Coal Company plans to build a modern elevator this summer at Clay Center, Kan., which will be completed in time for the new crop. The buildings now on the site will be converted into office and warehouse rooms which will be used until the new plant is completed.

CANADA

The Canada Steamship Company, Ltd., has let

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contract to Carter-Halls-Aldinger Company, Ltd., of Winnipeg, for the construction of a 2,500,000-bushel grain elevator at Kingston, Ont., announcement of

which was previously reported. Work on the building is well under way, and early completion is expected.

of the mixing shed were destroyed, causing a loss of about \$250,000. Insurance fully covered the damage. Work is proceeding on the completion of the structure.

Cincinnati, Ohio.—The wall of sixth floor of the elevator of the American Dismalt Company gave way recently completely crushing the small office building and injuring Ralph Strickmeyer, clerk. Damage is estimated at \$8,000.

Council Bluffs, Iowa.—The roof of the elevator of the Raven Mineral Manufacturing Company burned recently. The walls were left standing, but a large quantity of grain was damaged by water. The loss is estimated under \$50,000, it is reported.

Rochester, Ill.—Fire destroyed the Rochester Grain Company's elevator on February 15. Edmond Chard, sole owner, estimates loss, partially covered by insurance, at \$85,000 to \$85,000. Two cars of wheat on a siding and 6,000 bushels in the bins, also some corn and feed were burned.

Lorain, Ohio.—Fire on a lot adjacent to the Mills Elevator damaged property of the company on February 17 to the extent of \$1,800. Implements, fertilizer, hay, straw, and a truck were damaged by fire and water, but the blaze was prevented from reaching the grain elevator. It is thought that neighborhood boys may have started the fire.

FIRE-CASUALTIES

Litchfield, Ill.—Fire destroyed the Farmers Elevator on February 7.

Kankakee, Ill.—The plant of the Kankakee (Ill.) Ice, Feed & Fuel Company burned recently.

Saratoga, Ind.—The Morrison-Tegarden Company lost its elevator and stock by fire on March 1.

Woodstock, Iowa.—Fire destroyed the elevator of the Nye-Schneider-Jenks Company on February 28.

Nekoma, N. D.—Fire recently destroyed the Woodworth elevator and about 14,000 bushels of grain.

Sublette, Kan.—Fire destroyed the office building of the Lemon & Bargee Grain Company on February 8.

Alta Vista, Iowa.—The elevator and warehouse of Thomas Burns and William Mantz were destroyed by fire recently.

Fordville, N. D.—The Fordville Farmers Elevator, containing 6,000 bushels of grain, was destroyed recently by fire.

Nekoma, N. D.—The house of the Woodworth Elevator Company, together with 14,000 bushels of grain, burned recently.

Grant, (Elkton p. o.) S. D.—The elevator and stock, owned by Timothy and Frank Mangen, were destroyed by fire March 1.

Portis, Kan.—Fire totally destroyed on March 1 the elevator and stock of the Osborne County Farmers Union Co-operative Association.

Bloomville, Ohio.—The plant of L. B. Einsel was totally destroyed on February 18 in an explosion from lighting the office fire with kerosene.

Moorehead, Minn.—Vandals damaged the Finkle elevator, located six miles south of Moorhead. The destruction is estimated at from \$1,500 to \$2,000.

Rhame, N. D.—The elevator of the Farmers Equity Union burned February 22. Considerable grain was also lost. Insurance covered the loss.

Saratoga, Ind.—Fire destroyed the Morrison-Tegarden Company's elevator at Saratoga, seven miles northeast of Winchester, causing a loss of \$15,000.

Topeka, Kan.—Beck's feed storage warehouse burned recently. A large quantity of grain, hay, straw and feed, valued at about \$5,000, was destroyed.

Clarkson, Neb.—The seed plant of Buhacek & Zrust Company was recently damaged by fire, causing a loss of \$10,000. A large quantity of seed was destroyed.

Grundy Center, Iowa.—Fire destroyed the Clyde Smith elevator, causing an approximate loss of \$30,000, and razed a near-by grain storage building, owned by W. B. Wilson.

Colville, Wash.—Fire destroyed on March 3 the warehouse of the Columbia Feed Company, causing a loss of \$10,000. Owners of the company are J. O. Morris and W. J. Wilton.

Lafayette, Ind.—Fire on February 15 caused a \$1,000 loss to the Crabbs-Reynolds-Taylor Grain Company when its drier caught fire. A quantity of seed was included in the loss.

Shelbyville, Ind.—Fire damaged on March 2 the elevator of Martin Cutsinger & Co., causing an estimated loss of \$30,000. Defective wiring is thought to have started the fire.

Murray, Utah.—Oscar J. Bennion, of Hyrum Bennion & Sons Company, elevator and mill operators, was seriously injured on February 11, and had to have one of his arms amputated.

Monica, Ill.—Fire destroyed on February 1 the elevator of S. L. Lester, containing 1,000 bushels of grain. Mr. Lester had recently purchased the elevator from James Jackson of Princeville.

Kaleva, Mich.—Ray Ballard was severely burned recently while lighting a fire in the bean pickling room of the Kaleva Produce Company's elevator. Quick action on the part of Mr. Ballard saved the elevator.

Winfield, Kan.—Fire destroyed on February 19 Elevator "C", garage, steel tank, and stock of the Consolidated Flour Mills Company's plant. Loss is estimated at \$40,000. The house had a capacity of 25,000 bushels.

Boyceville, Wis.—The Boyceville Elevator, which was owned and operated by the Wisconsin Milling Company of Menomonie, was totally destroyed by

fire on February 25, causing an estimated loss of about \$15,000. The firm will conduct business in its warehouse until it is decided to build a new elevator.

Oklahoma City, Okla.—Fire damaged the feed plant of Hardeman-King Company on February 11, to the extent of about \$6,000. Insurance covered the loss. Defective wiring is thought to have started the fire.

Prescott, Ont.—Fire last month damaged the new \$6,000,000 grain elevator which is under construction at Prescott, Ont., for the Canadian government. The wooden forms, the cement shed, and the roof

OBITUARY

ALLISON.—G. T. Allison, of the Allison Coal & Feed Company, Mason City, Iowa, died February 5. His widow, mother, and six sisters and brothers survive him. Mr. Allison was 55 years old.

ALMY.—William H. Almy, in charge of customs and insurance for Spencer Kellogg & Sons, Inc., Buffalo, N. Y., died early this month at his home in Buffalo. Mr. Almy was 82 years old and had been ill for several months. His widow survives him.

BABCOCK.—Frank Babcock, traveling superintendent of the Montana Elevator Company, died February 24 in a hospital at Great Falls. He had been ill for some time.

BAKER.—William Baker was killed while loading coal in one of the storage bins of the Graham Coal & Grain elevator at Princeton, Mo. He was 46 years old.

BECK.—John Alfred Beck, former grain elevator and mill owner, died recently at his home in Salem, Ind. He was over 90 years old.

BECKMAN.—Henry Christian Beckman, manager of the Farmers Elevator Company at Walcott, Iowa, died February 15, following a short illness. Mr. Beckman had been connected with the company for 18 years. His mother, seven sisters and three brothers survive him.

CAMPION.—Nicholas J. Campion, well known to the grain trade in New York City, died February 12. He was 58 years old.

CLIFTON.—W. C. Clifton, grain buyer at Crystal Springs, S. D., died February 21 at Bismarck, N. D. He was 55 years old. His widow and one daughter survive him.

CLINTON.—Joseph E. Clinton, feed salesman for the Early & Daniel Company, Cincinnati, Ohio, died February 8 at Raleigh, N. C.

DeWEERD.—William DeWeerd, operator of an elevator at Dorr, Mich., died February 28 in a hospital at Grand Rapids. He was 55 years old. His widow and two daughters survive him.

GARDNER.—E. R. Gardner, Jr., formerly in the feed business at Memphis, Tenn., was killed recently in an aeroplane accident at Garden City, Kan. His father was for many years official grain and hay inspector for the Merchants Exchange at Memphis.

GRAVES.—W. D. Graves, ex-member of the Boston (Mass.) Grain & Flour Exchange, died March 3 while on his way to Boston. Mr. Graves' home was in Watertown, N. Y.

HAYES.—George Hayes, managing partner of the Hebron (Neb.) Grain Company's elevator hung himself on February 3. Mr. Hayes also operated an elevator at Deshler, and formerly had houses at Gladstone and at Gilead. His widow and three children survive him.

HERBST.—Robert Herbst, veteran member of the New York Produce Exchange, and formerly engaged in the commission business, died recently at the age of 80.

HELDT.—Carl A. Heldt, connected with the Heldt Company, seed dealers at Evansville, Ind., died February 11 following an illness of two weeks. Mr. Heldt was known to the seed trade in southern Illinois and Indiana, and western and northern Kentucky.

HOBSON.—George W. Hobson, retired grain dealer, and founder of Hobson & Co., Philadelphia, Pa., died February 27. Mr. Hobson had been in the grain business 44 years.

JOHNSTON.—Walter H. Johnston, former manager of the Pinola (La Porte p. o.), Ind. Co-operative elevator died February 2 in Chicago, following an operation. His widow and son survive him.

KEYES.—Paris J. Keyes, former member of the Kansas City Board of Trade, died recently in Manitou, Colo., where he had gone for his health. He was 60 years old.

LIAS.—Charles F. Lias, assistant chief grain sampler for the Chicago Board of Trade, died February 22 at his home in Elmhurst. He had been ill for over a year. Mr. Lias had been in the sampling department since 1889. His widow survives him.

MACK.—Henry W. Mack, veteran member of the St. Louis (Mo.) Merchants Exchange, died February 19, following a long illness. Mr. Mack had been in the grain commission business in St. Louis for 50 years. (See details elsewhere in this issue.)

MALONEY.—John J. Maloney, grain broker at Winnipeg, Man., died recently. He was 50 years old.

McCOMAS.—John McComas, grain dealer at Indianapolis, Ind., died February 23 of heart failure. He was 54 years old. His widow, mother, son and daughter survive him.

MELZER.—Emil F. Melzer, of Melzer Bros., grain dealers and millers at Effingham, Ill., died February 24, following an illness of a few weeks. He was 55 years old. His widow, two sons, and two daughters survive him.

MITCHELL.—Barney J. Mitchell, member of the Chicago Board of Trade, died January 30.

MORSE.—William I. Morse, of Prentiss, Brooks & Company, Holyoke, Mass., and member of the Boston Grain & Flour Exchange, died March 7.

NEVILLE.—Edgar Neville, member of the Chicago Board of Trade, died February 1.

PETRIE.—A. A. Petrie, engaged in the feed and grain business at Mauston, Wis., for a number of years, died recently. He was 68 years old.

ROGERS.—F. Cooper Rogers, member of the Commercial Exchange at Philadelphia, and a grain broker, died February 19. He was 37 years old.

SCHWANTZ.—Anton Schwanz, manager of the Briscoe elevator at Tipton, Mo., died suddenly. He was 49 years old.

SIMONDS.—Colonel N. P. Simonds, retired Kansas City grain man, and founder of the Simonds Grain Company, established in 1884, died February 28 at his home in Altadena, Calif. In 1916 Mr. Simonds merged his company with the Lonsdale Grain Company under the name of the Simonds-Shields-Lonsdale Grain Company.

THOMPSON.—A. J. Thompson, in the feed and seed business at Okarache, Okla., died recently.

WARE.—Harry C. Ware, formerly connected with the Oklahoma Mill & Elevator Company, Oklahoma City, Okla., died February 19. He was 37 years old. A daughters and a son survive him.

WINTERS.—L. L. Winters, member of Hulburt,

Warren & Chandler, and of the Chicago Board of Trade since 1899, died February 24 at Winter Park, Fla. Mr. Winters had been in poor health for three years. Mr. Winters served as first chairman of the business conduct committee of the Board of Trade

and was a director from 1920 to 1923. He was considered a national authority on economics and grain marketing. He was 57 years old. His widow and four children are the members of his immediate family who survive him.

HAY, STRAW AND FEED

W. L. Perry has installed a feed grinder in his plant at Guymon, Okla.

The Morton (Minn.) Feed Company has equipped its plant with a corn crusher.

O. C. Dodson has equipped his plant at Corydon, Iowa, with a feed grinding outfit.

The Farmers elevator at Bellingham, Minn., will install a feed grinder this spring.

The Phillips Gin Company, Sapulpa, Okla., is manufacturing a line of mixed feeds.

J. W. Bowers has equipped his plant at Walnut Ridge, Ark., with a new feed grinder.

M. S. Henry & Company, Crowell, Texas, has installed a large feed grinder in its plant.

R. P. Andreas has equipped his plant at Mount Vernon, Iowa, with a one-ton feed mixer.

Feed grinding machinery has been installed in the plant of Lehmkuhlen Bros. at Arnold, Neb.

A feed grinder has been installed in the plant of the Cadmus (Mich.) Farm Bureau Elevator.

The Victoria Elevator Company, Sebeka, Minn., has installed a packer in its feed department.

The Pine Village Feed Company has installed a batch mixer in its plant at Williamsport, Ind.

A feed business is being established in Rising Star, Texas, by Frank Castleberry, of Eastland.

L. D. Harrold has installed a sweet feed mixer and a feed grinder in his plant at Fairfax, Okla.

A feed station has been established at Marysville, Calif., by the poultrymen of southern Butte County.

Dale C. Lanning and J. W. Storm have taken over the Farmers Grain & Feed Company at Danville, Ohio.

The Harland Flour & Feed Company has added to its chain of plants a branch at Breckenridge, Minn.

Bert Evans, who operates the Dover (Okla.) Mill & Elevator, has opened a feed branch in Kingfisher.

Cushman & Son, Bath, Mich., have equipped the feed grinder in their grain elevator with a magnetic separator.

Frank Fieberger is equipping with a feed grinder the Zieske elevator at Sleepy Eye, Minn., which he has leased.

The Finnegan & Russell Feed Company, Woodland, Wash., has changed its name to the Superior Feed Company.

The Mor-Kik Manufacturing Company, manufacturers of feeds at Seymour, Iowa, has opened a branch at Corydon.

The Rockafellow Grain Company has equipped the feed grinder in its elevator at Ashley, Mich., with a magnetic spout.

The A. C. Van Noy Company recently organized at Kildare, Okla., plans to establish feed stores throughout Kay County.

The Washington Co-operative Egg & Poultry Association, of Seattle, Wash., plans to build a large feed plant at Spokane.

The Brenham (Tex.) Feed Company has been organized to operate a wholesale and retail business. Otto Schulte is manager.

The Morganfield (Ky.) Feed & Meal Company has been organized by Jess Buchanan to manufacture dairy, poultry, and stock feeds.

The Emery Thierwechter Company, Oak Harbor, Ohio will build a modern fireproof feed plant to replace the one which recently burned.

The Fitchburg (Mass.) Farmers Feed & Supply Corporation has been incorporated with a capital of \$95,000. Clarence R. Bachelder is president.

The Farmers Co-operative Company, Bridge-water, Iowa, has installed new equipment in its plant, consisting of a feed grinder and mixer.

The Ravenna (Mich.) Co-operative Butter Company has equipped its feed grinder with a magnetic spout to eliminate fire hazards from tramp iron.

The Post (Texas) Fuel & Feed Company has been incorporated with a capital of \$18,000. Incorporators are M. L. Mason, G. W. Connel and I. L. Deckworth.

The F. T. Rembert Company, Longview, Texas, has installed a modern feed grinder which has a daily capacity of 500 sacks. The company will

manufacture feed for the public and do custom grinding. A corn sheller has also been added to the company's equipment.

John Manson has purchased the share of John Macklem in the M. & M. Feed Company at Ida Grove, Iowa. The firm will operate under the same name.

The United Bi-Products Company, Kansas City, Kan., recently held a formal opening of its new 500-ton plant which manufactures poultry, stock, and dairy feeds.

The Pioneer Feed & Seed Company, Mount Vernon, Wash., has moved into the building formerly occupied by the Skagit Seed Company. The building has been remodeled and renovated. The warehouse has a floor space of 11,000 square feet, and

FIELD SEEDS

(Continued from Page 568)

but the few that did survive were the more valuable because they had demonstrated the ability to grow in spite of the wilt.

Further seedlings on less infested soil showed that these selected strains would make a crop where ordinary flax would fail. Once the wilt resistance was established it was possible to select seedlings having other desirable characteristics. This was the method followed at the North Dakota and Minnesota experiment stations and at the Northern Great Plains Field Station of the United States Department of Agriculture.

It was responsible for the selection of improved varieties of wilt-resistant flax such as Bison, Linota, Buda and Winona which have made it possible to grow flax with success and profit on old lands, where common unselected flax would fail.

NEW YORK SEED TRADE HELPED BY MILD WEATHER

By C. K. TRAFTON

As far as New York was concerned it was largely a "weather market" for seeds during the period under review. In short, there were several periods of dullness and activity in accordance with erratic climatic changes. On the whole, developments were much more satisfactory than during the preceding period, and especially during the last two weeks in February, when trade was unusually good for the season. For a short time prior to that business was very poor with inquiry reported as subnormal, partly because of heavy snows and partly reflecting the depression in business circles generally.

For these reasons, jobbers and retailers were holding off in expectation of lower prices, and they were also influenced by fears that buying by farmers might be curtailed. The weather then became unprecedentedly mild, the record-breaking temperature of 73 degrees being recorded in New York on one day. It was at this time that many buyers came into the market, reports of generally favorable soil conditions evidently arousing a more optimistic feeling regarding the requirements for spring planting. Demand was also quickened by a widespread belief that prices were at or close to rock-bottom and that any concerted rush of buying might result in a material advance, especially in the case of those seeds in which there seems to be some likelihood of some shortage of supplies developing as the season progresses.

Business was helped partly by a decline of one-quarter cent to one cent in several varieties, but the majority of quotations are the same as those given a month ago and the tone of the market on the whole is steady. A sudden drop of 50 degrees in temperature, accompanied by sleet and snow, checked buying, but subsequently the weather was more spring-like than wintry and as a consequence distributors are confident of a renewal of good business before the end of the month.

Red Clover of foreign origin was again a feature, dropping from 17 to 16 cents duty-paid, as hopes of a better movement were not realized in spite of the

fact that the new price is 6½ cents lower than that current a year ago. Although about 850 bags arrived from Europe during the month, the total imports since last fall are only about 3,000 bags, compared with nearly 19,000 for the same period last year; but, nevertheless, the supply is evidently regarded as excessive. At any rate, there is nothing like the usual demand, which is partly due of course to the exceptionally fine quality of the domestic clover, which can be bought at a very small premium, only 4 cents. The latter, at 20 cents, is ½ cent lower than a month ago, but it is firm at that basis, which is 13½ cents lower than last year's price.

Timothy declined ¼ cent to 7½ cents and this, coupled with the mild weather, led to a fairly good domestic trade late in February. In addition, more active buying was reported for British and continental accounts, confirming claims that Europe needs our timothy. This business, however, has not shown up in the clearances from New York, the total for the month being only about 2,550 bags, against about 8,040 for the preceding period.

DODDER WARNING

Many infestations of dodder in Ohio Clover fields were reported last year. For this reason, C. R. Cutler, assistant in agronomy at the Ohio Experiment Station, warns Ohio farmers to keep a sharp lookout for dodder in the Clover seed they propose to plant this spring.

Dodder is a yellowish, threadlike plant that grows by attaching itself to Clover or Alfalfa plants. Since it has no root system of its own. The small oval sandy colored seeds will live over in the ground for several years. The large crop of Red Clover in Ohio last year with the accompanying low seed prices and the lack of a market for dodder infested seed, indicate that much of this infested seed will be offered to neighboring farmers at attractively low prices. Dodder seed cannot be removed with the clover seed equipment on the farm.

Infestations of dodder can usually be traced to the use of low grade seed or to the purchase of dodder infested hay. The weed can be avoided by the use of clean seed. Since it is a noxious weed Clover seed containing dodder must state the fact on the tag required by law provided more than one dodder seed is found in a five-gram sample of Clover seed.

SEED DEVELOPMENT HINGES ON BEE-POLLENIZATION

How long a tongue should a honeybee have? In Russia students have made careful biometric studies of bees in areas where there has been relatively little interregional shipment of bees, and where the bees in any given region are fairly uniform in race and strain. The Russian students find that the northern bees have shorter tongues than the bees of the south. The explanation lies in the adaptation of the bees to the conditions under which they live. In the north the bees gather their

honey supply in a relatively short season and in what the beekeepers describe as an intense honey flow. In the South the season lasts longer and the honey flow is not so intense. The southern bee needs a longer tongue.

From the standpoint of the Red Clover grower in the United States it might be desirable, says W. J. Nolan, of the United States Department of Agriculture, to have bees with longer tongues in the red clover regions. He explains that the corolla tubes of the red clover blossom are too long for the shorter-tongued honeybees who find it difficult or impossible to gather honey from them.

This tends to reduce the visits of all but the longest-tongued bees, and, consequently, many Clover blossoms are not pollinized by visits of bees and do not bear seed. The races of bees most common in the United States are not exceptionally long tongued. Introduction of long-tongued bees in areas where Clover seed production is important would probably result in larger seed crops and in a larger clover-honey supply.

INDIANA SEED NOTES

By W. B. CARLETON

There has been some improvement in the seed trade with both wholesalers and retailers in Indiana during the past month and indications point to considerable activity during the coming month to six weeks. Dealers are looking for an active season and believe their volume of trade for the first six months of this year will show a big improvement over the corresponding period of last year. Farmers are making active preparations for the planting of large crops. Along the Wabash valley, where farmers suffered heavy losses during the floods in January and February, there now is a great deal of activity and it is believed that practically all the land that was under water during flood time will be planted before the middle of May or the first of June. Farmers are looking on the bright side of the trade picture and are working with a vengeance. Many of the farmers in central and southern Indiana, taking advantage of the mild weather in late February and March, have broken their ground for corn. Reports say that a fair acreage of oats will be put in this year. The acreage last year was far under that of the preceding year.

J. A. McCarthy, of the J. A. McCarthy Seed Company at Evansville, is a great radio fan. In addition to operating a modern seed store at Evansville, Mr. McCarthy has branch stores at Vincennes and Terre Haute. For some time he has furnished a program over broadcasting station WGBF at Evansville, that has been of especial interest to the country folks. His programs are given every Saturday night and thousands of people have tuned in to hear these splendid programs.

Louis L. Kindermann, of William Kindermann's Sons, retail seed dealers at Boonville, one of the best-known seed men in that section, has been confined to his home for the past several weeks with illness and on several occasions his condition was regarded as being serious. Mr. Kindermann has not enjoyed good health for the past several years.

John Jensen, county agricultural agent, was in charge of a seed school held in Elnora on February 19. The main speaker was O. C. Lee, weed and seed specialist of the Purdue University extension service.

Tests made recently by O. S. Williams, agricultural agent of Rush County, indicate there is a big shortage of good seed corn there. This same report is coming from many of the other counties of Indiana. Harold Yarling, agricultural agent of Han-

cock County, arranged a corn school at Greenfield for February 28, that was addressed by M. O. Pence and C. T. Gregory, of Purdue University. An all day Green county corn school was held at Bloomfield late in February, when the seed corn situation was gone over. Speakers from Purdue University were present. Virgil D. Sexson, agricultural agent of Green County, has announced the seed corn situation in that county is the most serious in many years.

More than 50 per cent of the seed corn tested in the first tests made in the commercial seed corn tester by the farm bureau in the court house at Evansville, has proved bad, according to John F. Hull, county agricultural agent.

Saline County (Illinois) farmers, a few miles west of Evansville, have just received 8,730 pounds of Sweet Clover seed distributed through the farm bureau office for sowing this spring. It will seed over 700 acres of land.

O. A. Cook, who for many years was engaged in the seed and feed business at Boonville, was a recent visitor in Evansville.

Harris Landis, of the Worthington (Ind.) Grain Company, well known seed dealers, reports the wheat conditions in his territory is fair to good, although some wheat was "frozen out" during the past winter.

HIGHER TARIFF ON CLOVER SEED

The United States Senate has completed nearly every individual amendment to the agricultural section of the tariff bill, and the pending schedules contain new rates for several seed items.

Senator Frazier, of North Dakota, has obtained the adoption of a rate of two cents a pound on Crimson Clover seed, an increase from five to eight cents on Alsike Clover seed, and from three to four cents on Sweet Clover seed.

An increase from two to three cents per pound on Timothy seed was rejected.

Another amendment places a duty of three cents per pound on mustard seed.

CONDITION RIGHT FOR GOOD BADGER SEED TRADE

By C. O. SKINROOD

The seed business at Milwaukee is going along at a good rate with seed handlers predicting that there will be an excellent demand for seeds based on the sales that have been made to date. The general feeling is that the low prices for the principal seeds are going to be a powerful factor in bringing up a large volume of business.

A good movement of Red Clover seed is reported by the Milwaukee seedsmen. The supply of seed is largely cleaned up from the first hands, and is selling around \$20 to \$21.50, or about \$12 cheaper than a year ago, according to one Milwaukee seedsmen.

There has been a good inquiry for Alsike at the Milwaukee market and apparently this is again going to be one of the most popular of all of the field seeds. All of the crop of Alsike seems to be cleaned up from the first hands. There has been an active call for it and consequently supplies

are not very large. Prices are around \$10 below last year's.

The supply of Timothy seed seems to be a little more plentiful at Milwaukee, handlers say. There are no oppressive stocks of this seed and it is selling around \$6.75 to \$7.25, which is about the same as the quotations a year ago.

The supply of Sweet Clover seed is getting scarcer, especially for the high grade seed. There are some mixtures in the market which do not move so readily as the first class seed.

The supply of Alfalfa seed at the Milwaukee market seems to be freer. More of the seed is available and it is easier to purchase. The demand

(Continued on page 574)

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for Alfalfa seed on the other hand has been only fair. Most of the buying comes as a rule a little later on. The price of Alfalfa is ranging around \$24 to \$27 for the medium grade up to the best seed.

There is a good demand just beginning to develop in the seed corn trade at Milwaukee. The choice seed is expected to be scarce as it often has in the past seasons but the medium and ordinary seed will be plentiful, is the verdict of the Milwaukee seedsmen. However, it is a little early for seed corn to move so that the exact trend of the market in the big buying season cannot yet be determined. Quotations for good seed corn range mostly around \$2 to \$3.25.

One of the most remarkable instances of raising seed in Wisconsin is believed to be that of Clarence Thorstad who lives near Red Granite, Wis., and who was the first farmer in Waushara County to qualify as a grower of certified seed. In 1928 Mr. Thorstad grew not less than 420 bushels of seed corn on four acres of sandy soil considered by many farmers as worthless less than 10 years ago. Lime, marl, and manure, and alfalfa were used to restore the condition of the soil, and in 1929 Mr. Thorstad had a yield of not less than 950 bushels of seed corn from nine acres. The samples of this seed corn submitted to the Wisconsin College of Agriculture laboratory at Madison showed very high germination qualities ranging from 98 to 100 per cent.

P. Klassen has built a brick seed house at Mountain Lake, Minn.

The Nampa (Idaho) Seed & Grain Company has completed a new concrete warehouse.

The Wyatt Seed & Feed Company, St. Petersburg, Ind., has installed a seed-cleaning machine.

The Vogeler Seed & Produce Company has installed grain grading and moisture testing equipment in its plant at Salt Lake City, Utah.

The C. L. Seger Grain Company, Jackson, Minn., has added a seed department to its plant, and has installed an alfalfa huller and a modern seed cleaner.

The Binding-Stevens Seed Company, Tulsa, Okla., is enlarging the warehouse of a plant which it recently acquired, and which includes an elevator and manufacturing establishment.

W. M. Duffey has bought the Brownsville (Tenn.) Produce & Seed Company which he has moved to his present location where he will operate as the Brownsville Produce & Seed Company. Mr. Duffey was formerly a partner in the Produce company. He will deal in seeds, feeds, produce, etc.

The Mitchellhill Seed Company, St. Joseph, Mo., has recently purchased the Nave-McCord Mercantile Company's building so that it may have larger quarters. The company is now transacting business in five different locations in St. Joseph, but with the new purchase it will be able to operate in one building.

Irwin H. Curl and Albert M. Hand have formed the Curl-Hand Seed Company at Portland, Ore. They will handle field and grass seeds, milling equipment, and supplies. Mr. Curl has been in the seed business for the past 15 years, and Mr. Hand recently resigned as director of the Portland Seed Company with which he had been connected for 18 years.

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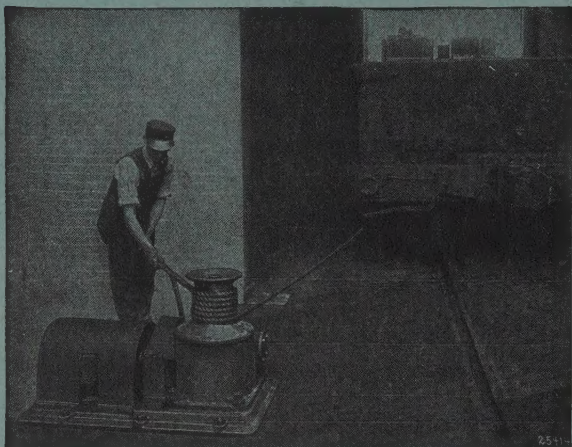
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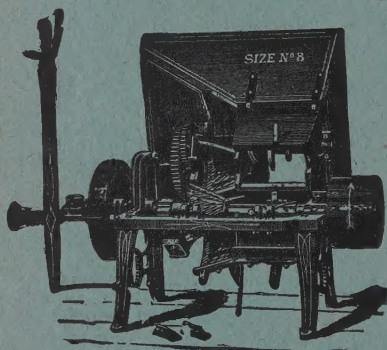
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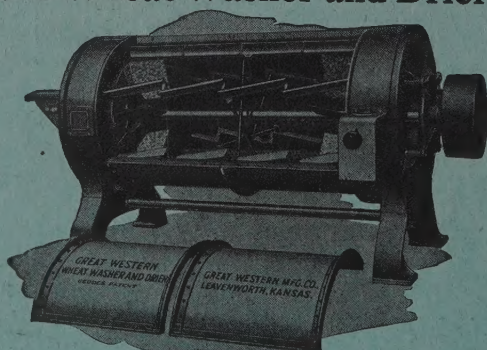
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